MODERN
SCHOOL GEOGRAPHY
AND
ATLAS.

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1893

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THE

MODERN SCHOOL

GEOGRAPHY

AND

ATLAS.

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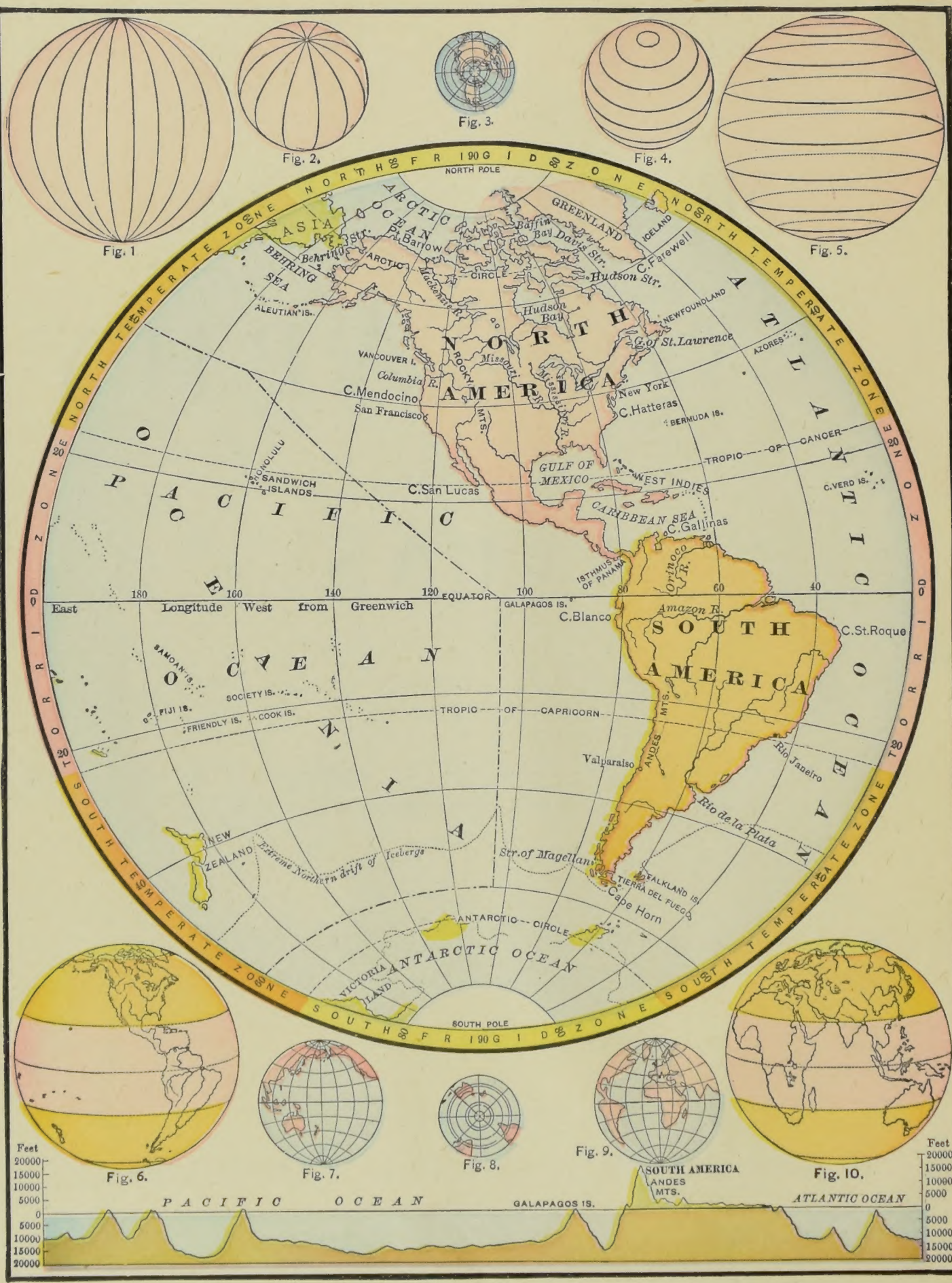

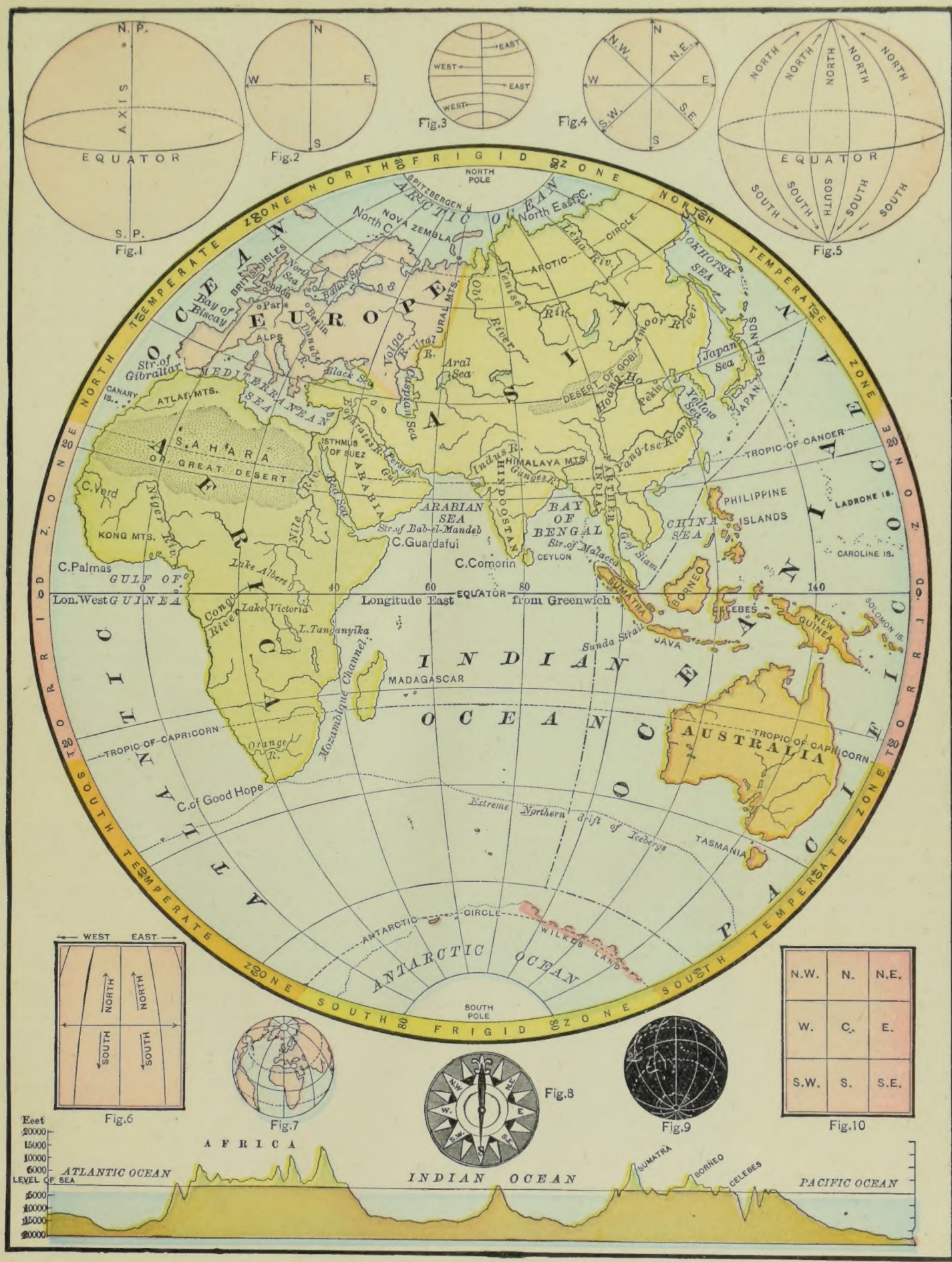
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Caspian Sea
ASIA
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ATLAS MTS.
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Euphrates R.
Persian Gulf
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SOLOMON IS.
Sunda Strait
JAVA
INDIAN OCEAN
MADAGASCAR
Mozambique Channel
Orange R.
TROPIC OF CAPRICORN
AUSTRALIA
C. of Good Hope
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TO THE TEACHER.

THE study of Geography, often the driest and most wearisome the pupil has to deal with, will always be so unless the Teacher "to his knowledge adds understanding," and presents the subject so that, while he satisfies the child's eager curiosity by offering to it well arranged facts, he also enkindles the child's imagination, and thus makes possible the mental assimilation of these facts. In other words, it is from the Teacher's own lips, from his own vivid portraiture and apt illustration (as well as orderly grouping) of the infinite number of details which make up the great mass of geographical knowledge, that the pupil must catch that necessary enlivening of the imagination which shall give to his conceptions of these details the vividness of comprehension without which they will be forgotten in a day or two, or, if remembered for a longer time, will be utterly valueless.

For example, suppose a child learns from his *Geography*, or otherwise, that "the commonest timber trees of New Brunswick are the pine, the spruce, the hemlock, the oak, the elm, the ash, the maple, and the beech;" what chance has he of remembering this fact (or of what value is his knowledge to him if he does mechanically remember it?) unless at the same time he acquires some definite and apprehensible (because interesting and useful) ideas in regard to these trees, their appearances, their manners of growth, their relative plentifulness or rarity, their qualities (whether hard in the grain or soft, whether easy to be worked or difficult, whether durable or quick to decay), their respective utilities, and so on? Yet even in his method of developing these ideas, the Teacher may make serious error; he may think that by perfectly describing these matters in correct phraseology and obtaining his descriptions from the pupils in return, he has done his whole duty, when in reality he has failed almost altogether. These ideas should *not* be *implanted* in the minds of the pupils—they should be *begotten* there—by the development of simpler related ideas which the pupils already have; that is to say, the Teacher, by a series of apt questions, and apt illustrations, and apt appeals to their own experiences, should develop in the pupils' minds the concepts which he wishes them to retain.

Take another example. Suppose the statement which the pupil is desired to remember is that "the forest vegetation of Brazil is dense and luxuriant." The phraseology is simple; not a word is used that the pupil does not understand; and yet if nothing be done to illuminate that statement with the light of the pupil's previously acquired knowledge, it will remain a dead fact, or disappear from his mind altogether. But if the nature of a forest, the effects of heat upon vegetation (as manifested in summer growths and in hot-house growths), the effects of dampness upon vegetation (as manifested in swamps and during rainy seasons)—if these and other related notions are elicited or developed from the pupil's own experience, they will give such reality to the statement in question, and so illustrate it, that its impression on the mind will be indelible.

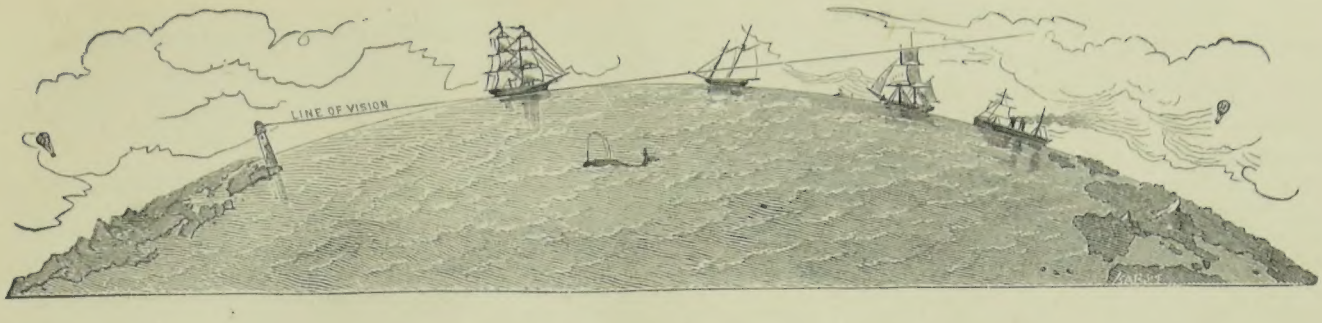
Again, every geographical fact is naturally connected with some other geographical fact; and this, again, with some other; so that the fact most foreign to the pupil's experience may be brought in close relation to it, if sufficient pains be taken. For example, the statement that "in Siberia great quantities of fossil ivory are found" is a dry and uninteresting one in itself, and one likely to be soon forgotten. But if notions respecting the appearance and uses of ivory (as, for instance, the smoothness, whiteness, and non-metallic lustre of piano keys, ivory knife handles, ivory chess-men, and so on), and also concerning ivory in its natural condition—the tusks of elephants—be elicited from the pupil's experience; and then if the facts be clearly stated and illustrated that the mammoth (which was a tusk-bearing animal—a sort of elephant) was once an inhabitant of Canada, and that remains of mammoths with their ivory tusks have been found in several places in Ontario, but that in Siberia (where also in former ages the mammoths were inhabitants, and where they seem to have been very numerous) their remains have been much more perfectly preserved, the extreme north of Siberia being a very cold country—if these notions and facts are all brought out and logically linked together, the pupils will undoubtedly have a vivid and never-to-be-forgotten realization of the meaning of the statement referred to.

In the MODERN SCHOOL GEOGRAPHY, then, it is intended that the *whole of the matter shall be presented to the pupils by the Teacher*—not in a series of categorical statements to be accepted by the pupils without reflection and without comment, but in a series of conversations, consisting to a large extent of questions by the Teacher and replies by the pupils—questions, *not* on what the pupil has consciously committed by rote from the text-book, but on what he has obtained for himself, he knows not how, from the use of his eyes and ears and brain, ever since he began to observe and think; conversations consisting, moreover, of volunteered statements which the pupils should be encouraged to offer, based on their own reading and research.

Again, a very great deal of discretion is very properly allowed to the Teacher in respect to what may be called "Structural Geography," or the coast and surface features of countries, with their nomenclature. Very frequently this is made the whole burden of geographical study, although it ought really to play only a subordinate part in it. And since this knowledge should be obtained entirely from the study of the maps under the guidance and oversight of the Teacher, it has been thought best not to over-fill the text with a mass of details which are sufficiently well indicated by the maps. The Teacher is supposed to be able (as it is his duty) properly to direct the pupils in their study of these matters.

And it is earnestly recommended that the Teacher shall not confine himself to the facts herein detailed in reference to any part of the world. Especially should he be ready with appropriate passages of travel, and with descriptions of scenery, and of the natural products of countries, and of the manners and customs of their peoples, by reading (and subsequently conversing about) which, he may illustrate (as in no other way he can), the concise statements of the text.

The Teacher should be careful to remember that all the *Geography* is not to be committed to memory, or indeed more than a small part of it; he who should insist upon his pupils memorizing the numbers representing the populations and square miles in the various cities and countries of the world, or even a table of their relative sizes, would be worse than an intellectual tyrant—he would be a destroyer of intellect. But the skilful Teacher will find no trouble in devising ways and means whereby he shall assure himself that his pupils *understand* what their text-book contains; then, what is useful for them to remember, they will remember without much subsequent effort.



MODERN SCHOOL GEOGRAPHY.

INTRODUCTION.

GEOGRAPHY is a description of the Earth, its surface, its divisions, and its inhabitants. The Earth is a ball or sphere, slightly flattened at the two opposite points, like an orange, and bulging out a little in the middle. To prove that the Earth is round, although it appears to us to be flat, we know that we can see only the surface of the ground about three miles on a level plain; and at sea the view, not being interrupted by mountains or any great inequalities in the surface, is bounded on all sides by the horizon. When a vessel appears in sight, the masts are always seen before the hull. A vessel can sail round the world and come back to her starting-point without changing the direction of her course, except to avoid bodies of land.

The **Earth** is nearly 25,000 miles in circumference, and about 8,000 miles in diameter.

About one-quarter of the Earth's surface is land, and three-quarters water.

DIVISIONS OF THE LAND.

About one-quarter of the Earth's surface consists of land, the different parts of which are known by the following names:

A *Continent* is a large extent of land comprising several countries.

An *Island* is a smaller extent of land surrounded by water.

A cluster or group of islands is called an *Archipelago*.

A *Peninsula* is a portion of land almost surrounded by water.

An *Isthmus* is a narrow neck of land connecting two larger portions.

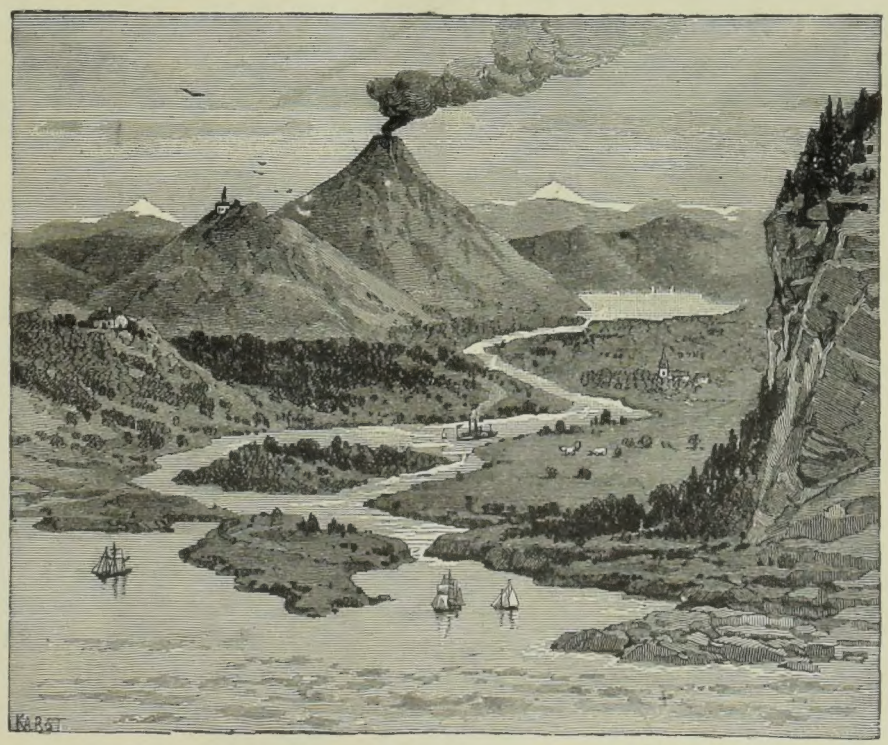
A *Cape* is a point of land projecting into the sea; and if high or mountainous, is called a *Promontory*.

A *Shore* or *Coast* is the edge or margin of land bordering on water.

A *Mountain* is a portion of land rising to a considerable height above the surrounding country. A *Hill* is a smaller elevation.

A *Range* or *Chain* is a line of mountains or hills extending for a considerable distance in one direction and having a common base.

A *Valley* is that portion of land which lies between mountains or hills.



PICTURE OF THE DIVISIONS OF LAND AND WATER.

A *Volcano* is a mountain which throws out fire, smoke, lava, and ashes. The opening from which they issue is called the *Crater*.

A *Plain* is a tract of level land, and when considerably raised above the level of the sea, it is called a *Plateau*, or table-land.

Plains are variously designated in different countries. In North America they are called Prairies and Savannahs; in South America, Llanos and Pampas; and in Russia, Steppes and Tundras.

A *Prairie* is a tract of land, generally flat, or slightly undulating, covered with long grass or small shrubs.

A *Desert* is a barren tract of country, covered with sand or rocks.

An *Oasis* is a fertile spot in a desert.

A *Water-shed* or *Divide* is a more or less elevated region or mountain ridge from which streams flow in opposite directions.

DIVISIONS OF THE WATER.

About three-quarters of the Earth's surface are covered with water, the different parts of which are known by the following names:

An *Ocean* is an extensive body of salt water. Although the ocean may be said to be one great body of water, it is divided into smaller portions, which are also called *Oceans*.

A *Sea* is a smaller portion of salt water.

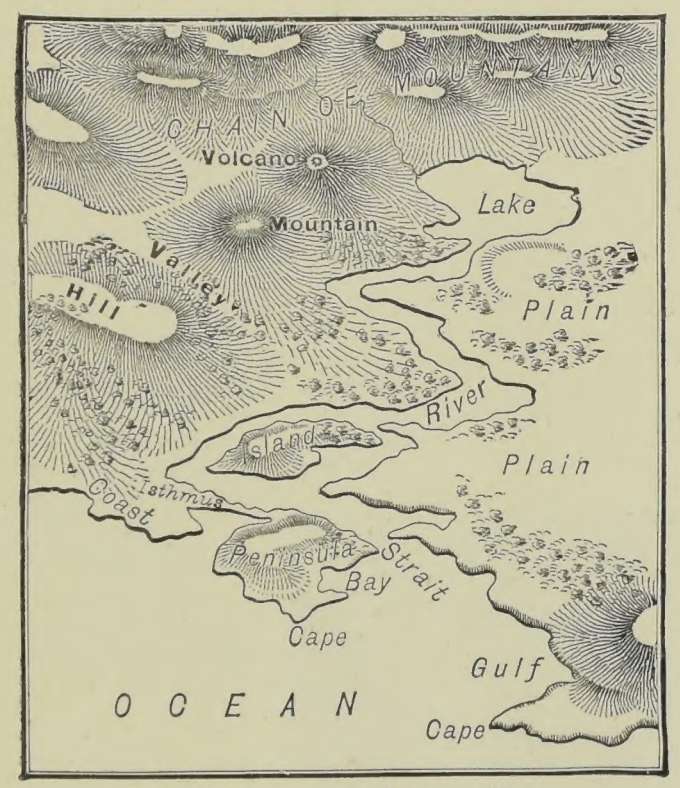
A *Gulf* or *Bay* is a portion of water extending into, and almost surrounded by land.

A *Strait* is a narrow portion of water connecting two seas. When it is shallow, so that it may be sounded or fathomed, it is called a *Sound*.

A *Channel* is a portion of water connecting two seas, but longer and broader than a strait. The same name is often applied to the bed of a river.

A *Lake* is a body of fresh water surrounded by land.

A *Lagoon* is a very shallow lake or an inlet of the sea.



MAP OF THE DIVISIONS OF LAND AND WATER.

A *River* is a stream of fresh water running into a lake, sea, or another river. Small rivers are called Streams,* Brooks, or Rivulets. A *Basin* is a tract of land drained or watered by a river. A *Delta* is that portion of land occupying the space between the different mouths of some rivers.

A *Tributary*, or *affluent*, or *branch*, is a smaller river flowing into a larger one. The *Confluence* of two rivers is the point where they unite.

An *Estuary* or *Firth* is an arm of the sea extending into the land to meet a river, and appearing to form a continuation of the river.

A *Port*, *Harbor*, or *Haven* is an enclosed area of water in which ships may find shelter. A *Road* or *Roadstead* is a larger area of water affording safe anchorage.

An *Ocean Current* is a great river-like movement through the comparatively still waters of the ocean.

A *Glacier* is a body of ice which forms in the upper valleys of lofty mountains and melts when it reaches the warmer valleys beneath.

An *Iceberg* is an immense floating mass of ice from the Arctic or Antarctic regions.

* In many parts of Canada a small stream is called a Creek.

CIRCLES ON THE GLOBE.

For convenience of measurement and calculation, the surface of the globe is divided by various imaginary Circles, which are shown by lines on the map.

The **Equator** is an imaginary circle drawn round the Earth, at an equal distance from the poles, and dividing the Earth into the Northern and Southern Hemispheres.

The lines running from East to West across the map are called **Parallels** of latitude, being parallel to the Equator. They are used for reckoning distance North and South from the Equator.

The length of a degree of latitude, or the distance between the parallels, is always the same, being 60 geographical or 69 statute miles.

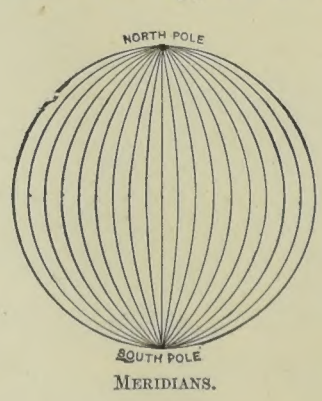
The lines running from North to South are called **Meridians.** They are drawn from one pole to the other, and cross the Equator at right angles. They are used for calculating **longitude,** or distance East or West of a given point.

The length of a degree of longitude, or distance between the meridians, varies, becoming shorter as we approach the poles. At the Equator it is 69 statute miles, at St. John about 49 miles, and at Toronto 50¼ miles.

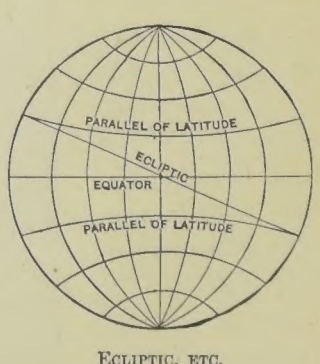
The **first meridian** from which we reckon passes through the Royal Observatory at Greenwich. Other countries generally reckon from the meridians which pass through their own capitals.

Longitude East or West means distance East or West of the first meridian at Greenwich.

The **Ecliptic** is a great circle representing the course which the Sun appears to take during the year, and is



MERIDIANS.



ECLIPTIC, ETC.

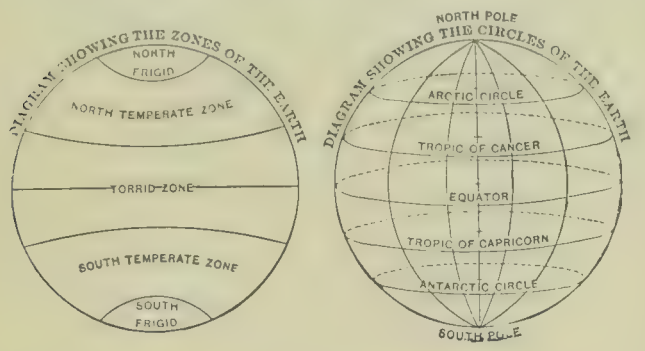
shown by a line drawn round the globe on the plane of the Sun's apparent orbit. The line of the Ecliptic, as represented on a terrestrial globe or on a map, shows where each day at noon the Sun is directly overhead. It will be remembered that the Earth gradually changes its position towards the Sun during the year which it requires to complete its revolution; consequently, the points at which the Sun is

directly overhead change every day. The extent of the variation in the position of the Sun towards the Earth is from 23½° North to 23½° South of the Equator, which thus equally divides the Ecliptic.

The Ecliptic crosses the Equator at two points in the Earth's course, about the 21st days of March and September; and at these two periods we have equal day and night all over the world. These are called the **Equinoxes.**

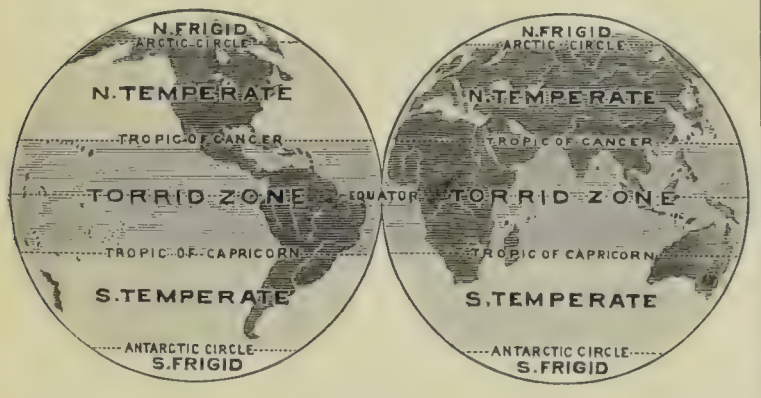
The **Tropics** are two circles drawn round the globe at equal distances north and south of the Equator, and parallel to it, touching the extreme points of the Ecliptic, and are thus 23½° distant from the Equator. The northern is called the *Tropic of Cancer*, the southern the *Tropic of Capricorn*.

The **Polar Circles** are lines drawn round the globe parallel to the tropics, and at equal distances from them, and



mark the distance the Sun's rays fall short of one pole, when the opposite pole has its greatest inclination towards it. As the Sun then shines vertically on places 23½° north or south of the Equator, so its rays fall short of one pole 23½°, and shine beyond the other to the same distance; causing continuous day for a time at one pole and continuous night at the other.

The tropics and polar circles divide the Earth into five *Zones* or belts:



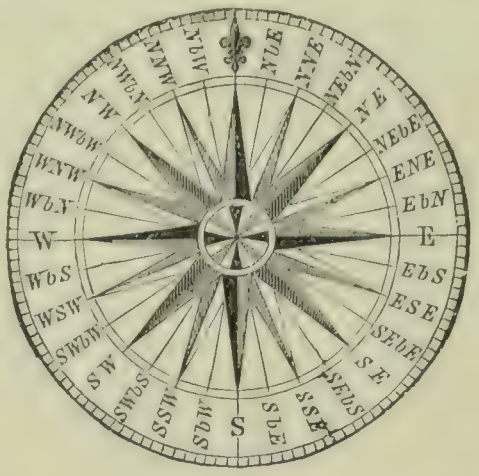
The **Torrid Zone,** extending between the tropics, and so called from the intense heat.

Two Temperate Zones, extending between the tropics and polar circles, so called from the heat and cold being less excessive than in the other zones.

Two Frigid Zones, extending from the polar circles to the poles, and so called from the intense frost and cold prevailing there.

The **Horizon** is the circle bounding the view by the apparent meeting of earth and sky.

The four **Cardinal Points** of the horizon are: North, South, East, and West. These are again subdivided in the mariner's compass, as may be seen by the diagram:



The **Zodiac** (from *zoon*, an animal) is an imaginary belt in the heavens, extending 8° north and south of the Ecliptic. The stars are arranged in groups or clusters, called Constellations, and each Constellation is supposed to have a resemblance to some animal or object, whose name it consequently bears. Twelve of these Constellations are in the Zodiac, usually called the Twelve Signs of the Zodiac, and are named as follows:

Aries, the ram.	*Libra*, the balance.
Taurus, the bull.	*Scorpio*, the scorpion.
Gemini, the twins.	*Sagittarius*, the archer.
Cancer, the crab.	*Capricornus*, the goat.
Leo, the lion.	*Aquarius*, the water-bearer.
Virgo, the virgin.	*Pisces*, the fishes.

The Sun rises in the Constellation *Aries* on the 21st of March, and about the 21st of every successive month he enters a new Constellation, until his apparent annual circuit through the stars is completed, on his return to *Aries*.

In consequence of the Earth moving in an elliptical, instead of a circular orbit, it is nearer the Sun at certain times than at others. Its distance from the Sun is about ninety-three millions of miles, but in mid-winter it is three millions of miles nearer than in midsummer. The coldness of winter, notwithstanding this proximity, is accounted for thus: 1. In winter the Sun's rays fall slantingly, and consequently have less heating power than when they fall more

perpendicularly, which they do in summer. 2. In winter the days are short and the nights long; and as the Earth radiates or throws off more heat during the long night than it absorbs during the short day, the weather, or temperature becomes cold.—*Morrison.*

DEFINITIONS IN MATHEMATICAL GEOGRAPHY.

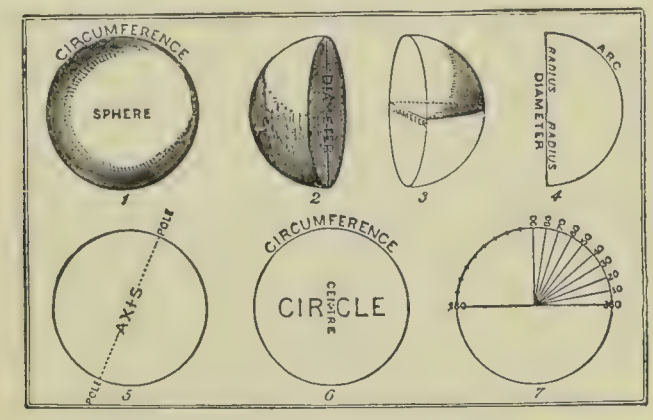


DIAGRAM OF MATHEMATICAL FIGURES.

1. A **sphere** is a solid bounded by a surface, all points of which are equally distant from a point within called the centre.

A **Hemisphere** is the half of a globe or sphere.

2. The **circumference of a sphere** is the curved line encompassing it.

3. The **diameter of a sphere** is a straight line passing through the centre, and terminating in the circumference.

4. The **axis** is that diameter of a sphere upon which it rotates.

Rotation is the movement of a body upon its axis.

Revolution is the movement of a body or point around another body or point.

5. The **poles** are the points on the surface of a sphere at the extremities of its axis.

6. A **plane** is a surface upon any part of which a straight line may be drawn.

7. A **circle** is a plane bounded by a curved line, all points of which are equally distant from a point within, called the centre.

8. The **circumference of a circle** is the curved line which bounds it.

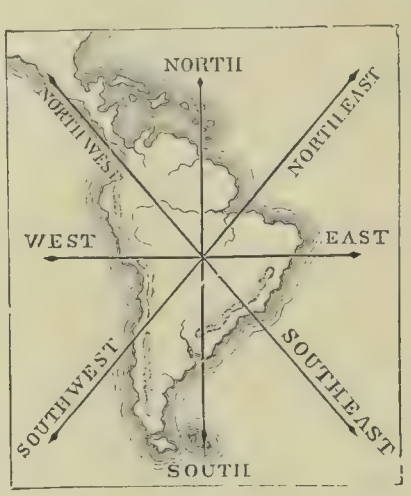
Though in geometry there is the distinction above noted between a circle and its circumference, in geography the term "circle" is generally used as synonymous with "circumference."

9. Circles of the sphere are divided into great circles and small circles.

10. A **great circle** is one that divides a sphere into two equal parts.

11. A **small circle** is one that divides a sphere into two unequal parts.

12. **Degrees.**—Every circle (circumference), whether great or small, is divided into 360 equal parts, called degrees, and marked thus, 360°. The $\frac{1}{60}$ part of a degree is called a minute, marked thus,—1′. The $\frac{1}{60}$ part of a minute is called a second, marked thus,—1″.—*Swinton.*

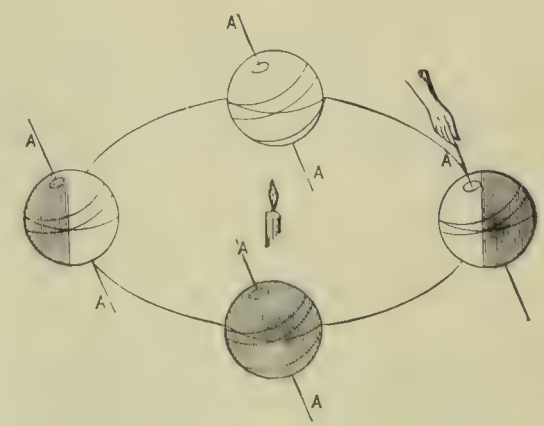


A **Map** is a representation of the Earth, or a part of it, on a plane surface.

The upper part of a map is generally North; the lower, South; the right hand, East, the left hand, West.

MOTIONS OF THE EARTH.

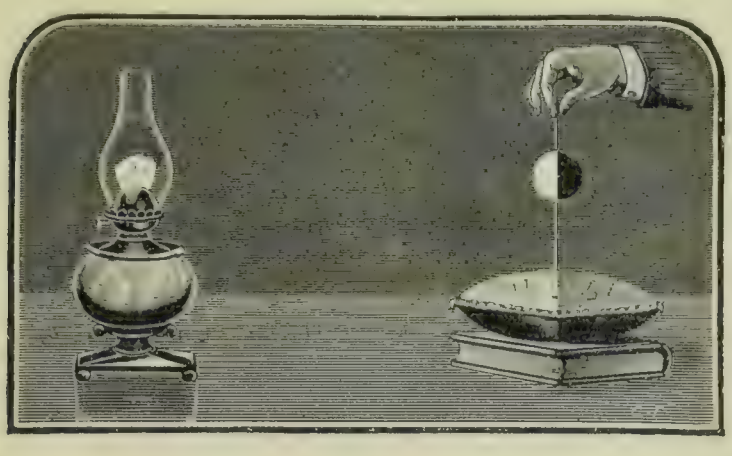
Although appearing to us to be perfectly still, the Earth is continually moving with great velocity. It has two motions:



1. The **Daily**, or **Diurnal.** Every twenty-four hours it revolves once on its axis, causing alternate day and night, according as the portion of the globe we live on is turned to or from the sun. The axis of the earth is an imaginary line passing through its centre, terminating in what are called the **North** and **South Poles.**

2. The **Yearly**, or **Annual.** Every year the Earth moves once round the Sun, producing the Seasons, according as the North or South Pole inclines towards the Sun. Thus, when the North Pole, or the northern portion of the globe upon

which we live, is inclined towards the Sun, it is summer with us, and Winter with the southern portion, or to all south of the equator. When the South Pole inclines towards the Sun, it is Winter with us, and summer south of the equator.



[In order to understand this, it is necessary for the teacher to explain that the axis of the earth is not perpendicular to the plane of its orbit, but is inclined to it at an angle of 23½ degrees. And as the axis of the Earth always points to the same part of the Heavens, the North or Polar Star, it is evident that, as the Earth moves round the Sun, each pole gradually changes its relative position to the Sun; and so during one-half of the year inclines towards the Sun, and the other half from it, as may be seen from the accompanying diagram (page 4), where AA represents the axis of the Earth, and the globes the position of the Earth, at Midsummer, Midwinter, and the Equinoxes.]

THE HEAVENLY BODIES.

The **Sun** is the centre of the system in which the Earth is placed, and round it the Planets and Comets move at various distances, each one having its own course, and showing forth the beautiful regularity with which the Creator has planned the universe.

The **Sun** is 863,000 miles in diameter, and 1,260,000 times larger than the Earth, from which it is distant about 92,750,000 miles.

The names of the other planets, their relative sizes, compared with the Earth, and their distances from the Sun, are:

	Times the size of the Earth.	Miles distant from the Sun.
Mercury	1–19th	36 millions.
Venus	1	67 "
Mars	3–16ths	141 "
Minor Planets; situated between Mars and Jupiter.		
Jupiter	1,438	482 millions.
Saturn	932	884 "
Uranus	87	1,777 "
Neptune	60	2,784 "

The **Planets** are supposed to be bodies somewhat similar to the Earth, although as yet little, besides their dimensions and orbits, is definitely known. Neither is it known whether they are inhabited, although they move in nearly the same plane as the Earth, and, like it, rotate on their axes, and have alternate day and night, and probably seasons more or less varied. According as they are nearer or more distant than the Earth from the Sun, they require less or more time to move round the Sun.

Comets are luminous bodies which move through space with immense velocity. They generally move on a different plane from the Earth and the other planets, and have an erratic course, not in a circle, like the planets, but at one time comparatively near, and at another being very far from the Sun.

The **Moon** is the attendant or satellite of the Earth. Were the Earth to remain still, the Moon would revolve round it in 27⅓ days; but as the Earth is continually moving, the Moon requires 29½ days to complete its revolution. The Moon is about one forty-ninth part the size of the Earth, and is distant from it 240,000 miles.

The Moon derives its light from the Sun; and as the Earth sometimes comes directly between the Sun and the Moon, it then casts a shadow on the Moon's surface. This is called an *Eclipse* of the Moon, or a *lunar eclipse.*

The Moon also, in its course round the Earth, sometimes comes directly between the Sun and the Earth, and hides for a time the whole or part of the surface of the Sun from our sight. This is called an *Eclipse* of the Sun, or a *solar eclipse.*

As the Moon does not move round the Earth on the same plane as the Earth does round the Sun, eclipses comparatively seldom occur. There are from two to five solar eclipses in the course of a year; there may be three lunar eclipses, and sometimes none. As, however, lunar eclipses are visible to a whole hemisphere at once, and solar eclipses only to a part, the latter, though happening oftener, are less frequently seen.

Besides the planets, there are multitudes of **Fixed Stars,** far beyond the system of which our Sun is the centre, and powerful telescopes reveal many more which are invisible to the naked eye. These shine by their own light, and are supposed to be suns, perhaps the centres of other systems as extensive as that in which the Earth is placed. The nearest of these Fixed Stars is about 200,000 times more distant than the Sun.

THE TERRESTRIAL GLOBE.

The **terrestrial globe** is a representation of the Earth, showing its approximate form, the outlines of the continents, oceans, and minor divisions of the land and water upon its surface, the principal mountain ranges, rivers, and other

physical features, and usually the political divisions, chief towns, etc. By means of its rotation on an axis, the circles in which it is supported, and those drawn upon its surface, it also enables us to illustrate many principles respecting day and night, the seasons, the relative position of places, etc.

The brass circle to which the axis of the globe is attached, and within which the globe may be made to rotate, is termed the **Universal Meridian,** because we may use it to represent the meridian of any place that is brought under it. The inner edge of one of the flat faces of this brass circle is divided into degrees and parts of a degree, which are numbered by quadrants in a peculiar way. Place the North Pole uppermost, with the graduated face of the **brazen meridian** toward you, and you will find that on the left side the degrees are numbered from 0° at the Equator, both ways toward the Poles; while on the right side they are numbered from each Pole toward the Equator. [The left side is used in finding Latitude, and the right side in "rectifying the globe."]

The broad wooden circle in which the brazen meridian is supported (and in which it may be revolved in its own plane), is commonly termed the **Wooden Horizon.** Its upper surface represents the **rational horizon** of any place which is uppermost on the globe. It divides the globe into upper and lower hemispheres. There are laid down upon it several concentric circles divided into degrees, marked off and numbered in different ways. One circle is numbered from 0° at the East and West points to 90° at the North and South points; this is the **amplitude circle.** Another is numbered in just the reverse way; this is the **azimuth circle.** A third shows the 32 **points of the compass.** A fourth represents the 12 **signs of the Zodiac,** each divided into 30 degrees. Next to this there is another circle divided into 12 parts answering to the calendar months, each marked off into the proper number of days, and so placed that each sign of the zodiac corresponds exactly with the portion of the year during which the sun is in that sign.

Around each pole there is usually a small brass circle divided into 24 equal parts, representing the hours of the day, which are subdivided into quarters or twelfths. This is termed the **Hour Circle.** It turns upon the axis of the globe, and is set to a given hour by bringing that hour directly under the graduated edge of the Universal Meridian. Some globes have a fixed hour circle with a movable index, which may be set opposite any given hour.

On the globe itself are drawn the following circles, viz.: 1. The **Equator,** divided into degrees of longitude and parts of a degree, and numbered both eastward and westward from the First Meridian. It is also divided, on the other side of the line, into 24 equal parts, to represent the hours of the day, with convenient subdivisions. 2. The **First Meridian,** and the opposite meridian of 180°, forming a meridian circle, which is divided into degrees of latitude. 3. The **Ecliptic,** divided into signs and degrees, numbered eastward only, from the first point of Aries. [For convenience, the ecliptic is made to cut the equator at its intersection with the first meridian. Of course, it has not properly any fixed position on the earth.] 4. The **Tropics.** 5. The **Polar Circles.** 6. **Parallels of latitude,** usually ten degrees apart. 7. **Meridians,** usually at a distance of fifteen degrees, answering to one hour.

On most globes there is also drawn a peculiar diagram called the **Analemma,** the object of which is to indicate the Sun's declination on any given day, and the "equation of time." (See any good almanac.)

With every globe there is furnished a pliable strip of brass, pivoted to a clamp, by which it may be attached to the brazen meridian. It is graduated in degrees of the earth's (or globe's) circumference, numbered from 0° to 90° in one direction, and to 18° in the opposite direction. When properly adjusted at the zenith or uppermost point of the universal meridian, it serves to measure distances above or below the horizon. It is called the **Quadrant of Altitude.**

PROBLEMS.

I. **To find the latitude and longitude of any place.**

Bring the given place to the graduated edge of the brazen meridian; the degree marked over it is the latitude; and the degree on the equator cut by the same edge of the brazen meridian, is the longitude.

Exercises.—Find the lat. and long. of (1) London, Eng., (2) Ottawa, (3) St. John, (4) Quebec, (5) Halifax, (6) Rome, (7) Calcutta, (8) New York.

Ans.—(1) 51° 30′ N.; 0°. (2) 45° 25′ N.; 75° 45′ W. (3) 45° 14′ N.; 66° 3′ W. (4) 46° 49′ N.; 71° 13′ W. (5) 44° 38 N.; 63° 36′ W. (6) 41° 54′ N.; 12° 59′ E. (7) 22° 36′ N.; 88° 20′ E. (8) 40° 42′ N.; 74° W.

Find the lat. and long. of Jerusalem, Rio Janeiro, Pekin, the North Pole, Melbourne.

II. **The latitude and longitude of a place being given, to find that place.**

Find the given longitude on the equator, and bring it to the universal meridian; then, under the given latitude on the meridian will be found the required place.

Exercises.—Find the places situated as follows: (1) 48° 50′ N.; 2° 20′ E. (2) 38° 52′ N.; 77° 3′ W. (3) 59° 58′ N.; 30° 26′ E. (4) 25° S.; 130° W.

Ans.—(1) Paris, (2) Washington, (3) St. Petersburg, (4) Pitcairn Island.

What places are situated in lat. 0° 13′ S., and long. 78° 23′

W.? in lat. 37° 47′ N., and 122° 24′ W.? in lat. 20° 10′ S., and long. 57° 35′ E.?

Note.—The difference of latitude between two places on the same side of the equator, and the difference of longitude between two places on the same side of the first meridian, will evidently be found by subtraction. The difference of latitude or of longitude between two places on opposite sides of those lines respectively will be found by addition. **Ex.**—The diff. of lat. between New York and Calcutta is 18° 7′, and the diff. of long. is 162° 20′.

III. **To find the distance between any two places.**

Lay the quadrant of altitude over the two places, and note the number of degrees between them; multiply by 69·1 for statute miles, or by 60 for geographical miles.

Note.—For distances greater than 100 degrees, or in any case, a straight strip of paper may be used, marking the distance on the edge, and then applying the strip to the equator to ascertain the number of degrees.

Exercises.—How many miles is it in a direct line (1) from Quebec to Rio Janeiro? (2) from Halifax to Montreal? (3) from London to the Cape of Good Hope? (4) from New York to Liverpool, thence to Barbadoes, and thence to St. John.

Ans.—(1) 5115 miles. (2) 490 miles. (3) 6098 miles.

IV. **To find the antipodes of a given place.**

Set the poles of the globe in the horizon, in order to use the wooden horizon instead of the brass meridian; bring the given place to the eastern edge of the horizon, and find its latitude, which will be the number of degrees it is north or south of the East point of the horizon. The antipodes will be found the same number of degrees on the opposite side of the West point.

Note.—Antipodes have the same latitude on opposite sides of the equator, and differ in longitude by 180°; hence when it is a winter day at a given place it is a summer night at the antipodes, and *vice versa*.

Exercises.—Find the antipodes of the following places: (1) London, (2) Singapore, (3) Cape Horn, (4) Lisbon.

Ans.—(1) Antipodes Island (nearly), (2) Mouth of the Amazon, (3) East of Lake Baikal.

V. **To find the length of a degree of longitude in any given latitude.**

With the quadrant of altitude or otherwise, find the number of degrees of the earth's circumference between any two consecutive meridians, along the given parallel of latitude. This distance being equal to 15° of longitude, divide the number found by 15, and multiply by 69·1, to reduce the result to statute miles.

VI. **The hour at any place being given, to find what hour it is then at any other place.**

Bring the place at which the time is given to the universal meridian, set the hour circle or index to the given time; turn the globe until the other place comes to the meridian; the required time will then be found on the hour circle under the meridian or under the index.

Note.—It should be remembered that, as a general rule, at places east of us (or of any given place) the hour is later in the day, and at places west of us the hour is earlier. But this is modified in many cases by the position with reference to the day line.

Exercises.—Verify any of the numbers in the following table.

TABLE SHOWING THE LENGTH OF A DEGREE OF LONGITUDE IN DIFFERENT LATITUDES.

Degree of Latitude.	Statute Miles.	Degree of Latitude.	Statute Miles.
0	69·1	50	44·5
5	68·8	55	39·7
10	68·1	60	34·6
15	66·8	65	29·3
20	65·0	70	23·7
25	62·7	75	17·9
30	59·9	80	12·0
35	56·7	85	6·0
40	53·0	90	0·0
45	48·9		

The **day line** is the line at which each day begins on the earth. It is located by geographers with a view to general convenience. Passing out of the Arctic Ocean by Behring Strait, it goes through the Pacific Ocean, first in a south-westerly direction, afterwards south-easterly, passing to the west of islands whose reckoning of days agrees with that in America, and to the east of islands whose reckoning of days agrees with that in Asia. Thus, when it is 10 o'clock on Sunday morning at Honolulu, it is 36 minutes past 10 o'clock on Monday morning at Tahiti, these places being on opposite sides of the day line, and the former having received its calendar from America.

Exercises.—

Given Place and Time.	Place at which Time is required.	Answer—Required Time.
London, G.B., 12 noon,	Sydney, N.S.W.,	10 hrs. 5 m. p.m.
Montreal, 7 p.m.,	San Francisco,	3 hrs. 45 m. p.m.
Edinburgh, 12 midnight,	Lima,	7 hrs. 5 m. p.m.
Halifax, 9 a.m.,	Ottawa,	8 hrs. 12 m. a.m.
St. John, 6 a.m.,	Hong Kong,	5 hrs. 59 m. p.m.
Sunday.		Sunday.

At the present time, what o'clock is it at Vienna, Chicago, Madras, Cape Town, and Yeddo?

VII. **To rectify the globe for the latitude of any place.**

Set the nearest pole (that on the same side of the equator) as many degrees above the corresponding side of the wooden horizon (the side marked North or South, as the case may be) as are equal to the latitude of the place.

Note.—**Rectifying** the globe means placing it **rightly** for using the wooden horizon as the rational horizon of the given place. When the pole is set at the proper elevation, and the place brought to the meridian, the place will be at the uppermost point of the globe, and the rational horizon of the place will be represented by the upper surface of the wooden circle.

Exercises.—Rectify the globe for the latitude of any of the places named under Problems I. and II.

VIII. **To find the declination of the Sun, and the places to which he is vertical at noon, on any given day in the year.**

Find the given month and day on the wooden horizon, and opposite to it, in the adjoining circle, will be found the sign of the zodiac and the degree of the sign in which the sun is on that day. [This is called the sun's place in the ecliptic.] Find the same sign and degree on the ecliptic on the globe, bring it to the universal meridian, and observe the degree marked over it: this will be the sun's declination, or distance from the equator. Turn the globe, and all the places which pass under that degree will have the sun vertical at noon on the given day.

Note.—The sun's place in the ecliptic is, of course, in the heavens and not on the earth, and hence it has no relation to places on the terrestrial globe, other than that which enables us to find the places at which the sun is vertical.

Exercises.—Find the sun's place on the 1st of January, the 20th of March, and the 21st of June.

Ans.—Capricornus, 10° 15′; Pisces, 30°; Gemini, 30°.

What is the sun's declination on (1) the 23rd of September, (2) the 10th of February, (3) the 7th of May, (4) the 20th of August.

Ans.—(1) 0°, (2) 14½° S., (3) 16¾° N.

Find some places at which the sun will be in the zenith at noon on the 7th of May.

IX. **To find the hour at which the sun rises and sets at a given place on a given day (the place not being in the frigid zones).**

Rectify the globe for the latitude of the place; find the sun's place in the ecliptic for the given day and bring it to the meridian; set the hour circle to XII; then turn the globe till the sun's place comes to the eastern edge of the wooden horizon, and the hour circle will show the time of sunrise; bring the sun's place to the western horizon, and the hour circle will show the time of sunset.

Note.—Double the hour of sunset gives the length of the day; double the hour of sunrise gives the length of the night.

The number of degrees on the horizon from the east point to the point where the sun rises, or from the west point to the point where the sun sets, is called the **amplitude** of the sun.

Exercises.—Find the hour of sunrise and sunset (1) at Halifax on the 21st of June, (2) at London on the 21st of December, (3) at Gibraltar on the 15th of June, (4) at Mexico on the 1st of September, (5) at Paris on the 15th of August.

Ans.—(1) Rises, 4h. 14m.; sets, 7h. 48m. (2) Rises, 7h. 45m.; sets, 4h. 15m. (3) Rises, 4h. 45m.; sets, 7h. 15m.

X. **To find the beginning of morning twilight and the end of evening twilight, at a given place, on a given day.**

Rectify the globe for the latitude of the place; bring the sun's place in the ecliptic on the given day to the brass meridian; set the hour circle to XII; fix the quadrant of altitude on the brass meridian at its highest point, which will be directly over the given latitude; turn the globe eastward until the sun's place will coincide with a point on the quadrant of altitude 18 degrees below the horizon: the hour circle will then show the time at which morning twilight begins. The end of evening twilight may be found in a similar manner by turning the globe westward.

Note.—The duration of twilight is the length of time from sunset to the end of twilight, or in the morning from dawn to sunrise.

Exercises.—Find the duration of twilight on the 23rd of September, 21st of December, and 21st of June, at (1) the Equator, (2) the parallel of 45° N., and (3) the Arctic Circle; also (4) at Moscow on the 20th of August.

Ans.—September 23: (1) 1h. 12m.; (2) 1h. 30m.; (3) 3h. 15m. August 20: (4) 3hrs.

XI. **To find the altitude of the sun at noon at a given place, on a given day.**

Rectify the globe for the latitude of the place; bring the sun's place in the ecliptic for the given day to the universal meridian; the number of degrees on the meridian between the sun's place and the horizon will be the sun's meridian altitude.

Exercises.—Find the meridian altitude of the sun (1) at London on the 11th of January, (2) at Pekin on the 4th of July, (3) at Constantinople on the 8th of November, (4) at

Fredericton on the 25th of December and on the 21st of June.

Ans.—(1) $16\frac{1}{2}°$, (2) 73′, (3) $32\frac{1}{2}°$.

XII. Any place in the North Frigid Zone being given, to find how long the sun shines there without setting, and how long he is below the horizon without rising.

Subtract the latitude of the place from 90°; the remainder is the sun's declination north when the longest day begins and ends, or his declination south when the longest night begins and ends. Find these declinations (or latitudes) on the brass meridian, and by turning the globe find the four points on the ecliptic which agree with them, observing in each case the sign and degree of the ecliptic. Then find, on the wooden horizon, the days corresponding to these four points. The days answering to the sun's place west and east of 0° Cancer are the commencement and close of the longest day; the days answering to the sun's place west and east of 0° Capricornus are the commencement and close of the longest night.

Note.—No day nor night other than the longest exceeds 24 hours in length.

Exercises.—Find the length of the longest day (1) at Cape North in Norway, and (2) at the northern point of Nova Zembla; also of the longest night (3) at Melville Island, 75° N. lat., and (4) at 87° N.

Ans.—(1) May 15 to July 29—76 days; (2) April 25 to August 19—117 days; (3) November 3 to February 8.

NATURAL PHENOMENA.

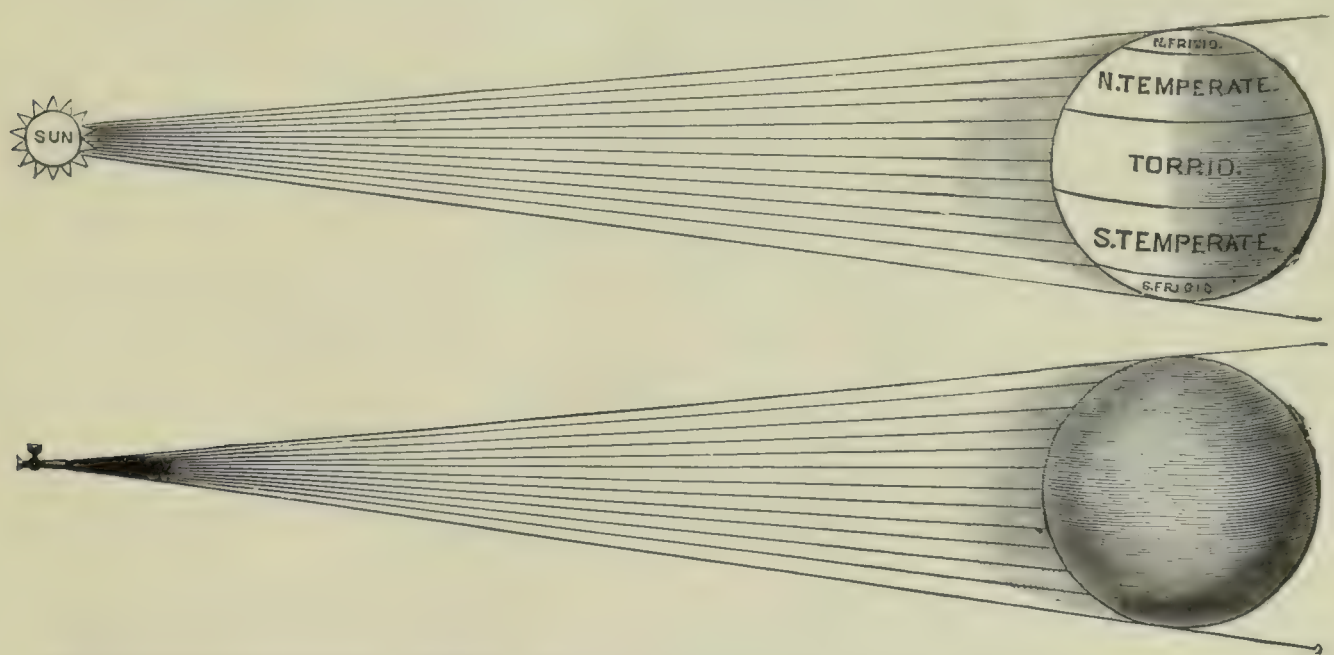
The **Earth** is surrounded by a transparent fluid called the air or atmosphere, which moves with it, and extends to a height of about 100 miles. Close to the Earth it is comparatively dense, becoming thinner as we ascend.

Heat and cold are produced according as the Sun's rays shine vertically or obliquely on the Earth's surface, and also vary according to the height above the level of the sea. The heat or cold of the atmosphere is called the temperature.

In the tropics, where the Sun's rays strike the Earth vertically, it is hottest; and within the polar circles, where the rays strike most obliquely, it is coldest. (See diagram below.)

But as the air becomes thinner as we ascend, the Sun's rays gradually lose their power, so that even in the tropics there is on the mountains a height above which snow will not melt. This is called the snow-line. This line gradually decreases in height as we approach the poles. At the Equator the snow-line is 16,000 feet above the level of the sea, and in New Brunswick it is about 6,000 feet; and, were there very high mountains in the country, their summits above that height would be perpetually covered with snow.

The atmosphere is never at rest, the particles of which it is composed being moved about by the influence of heat and cold, thus forming winds. Several contrary currents of wind may occur one above the other, as when we see the clouds moving in a different direction from the wind on the surface of the earth. When the winds move rapidly they cause hurricanes and storms.

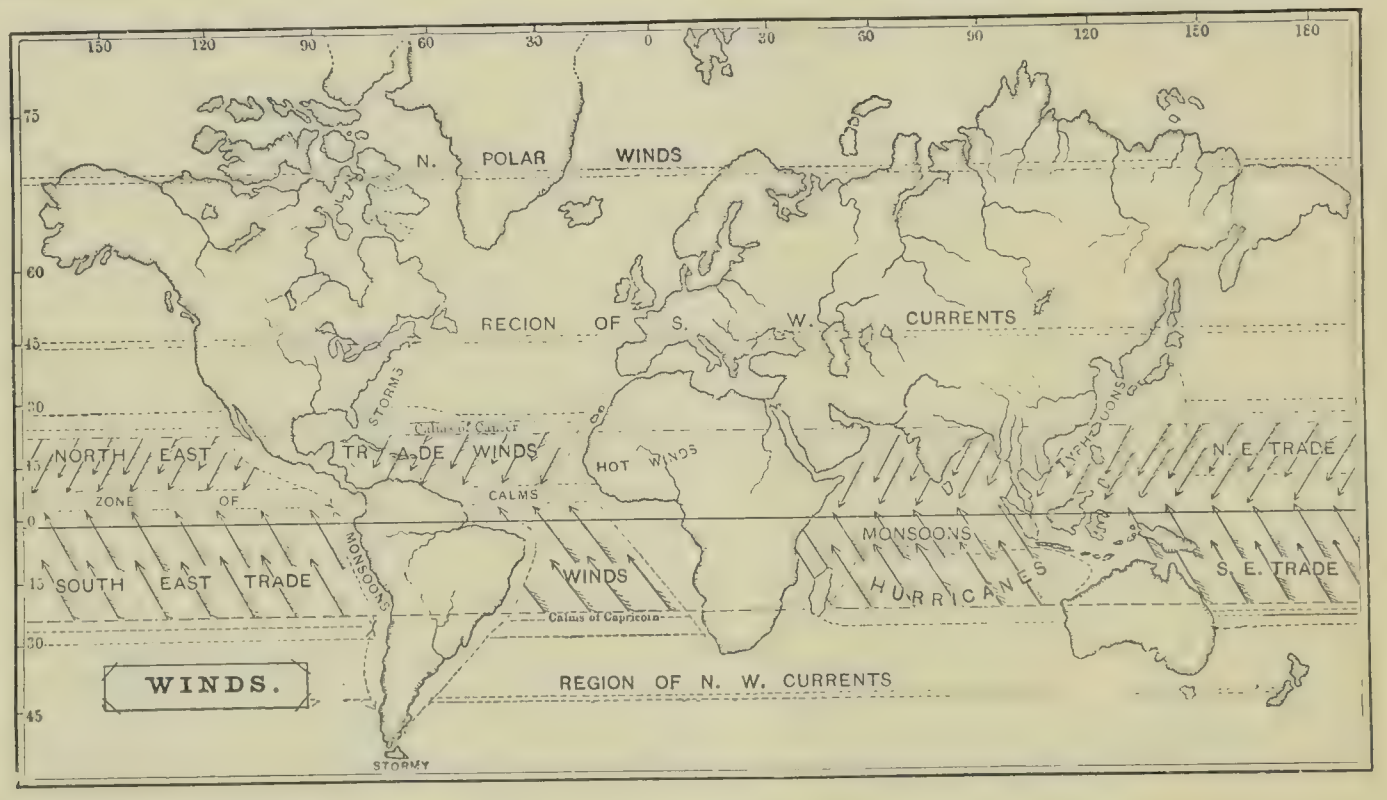


The Sun's rays striking the Earth, illustrated by a stream of water directed against a large ball. The water strikes the part of the ball which is right opposite the pipe with the greatest force, as shown by the spray on the picture.

"Winds have a purifying effect on the atmosphere; they dissipate unhealthy exhalations; they transport vapors from the sea, to moisten and fertilize the land; they carry the seeds of plants far and wide, and thus extend the empire of vegetation; finally, they waft our ships, and are in some countries made available as a motive-power for machinery. Among the most common periodical and local winds are land and sea breezes. The land receiving more heat than the sea from the Sun's rays during the day, a breeze sets in from the sea early in the forenoon and continues till about sunset. Soon after this the land, owing to the radiation of its heat, becomes cooler than the water, and a breeze sets in from the land which continues till sunrise."—*Cornell.*

wear away in their course the rocks, and dissolve the salt which they contain. The accumulation of this, and the continuous evaporation, cause the strong saltness of the ocean.

The principal current in the ocean is the Gulf Stream, in the North Atlantic Ocean. This flows from east to west in the Tropics into the Caribbean Sea and the Gulf of Mexico, then skirts the shore of North America as far as Newfoundland, whence it sweeps across the Atlantic and divides into two portions, one of which laves the shores of the British Islands and Norway, while the other, passing the Azores, flows south till it once more reaches the great equatorial current which gave it origin. The water of the Gulf Stream



In the Torrid Zone, the East or Trade Winds prevail throughout the year, and opposite currents prevail in the Temperate Zones. In the North Temperate Zone the prevalent winds are from the south-west, and in the South Temperate Zone from the north-west.

Periodical winds blow in different parts of the world, as the Monsoon on the shores of the Indian Ocean; the Typhoon in the China Sea; the Sirocco, Simoom, and Harmattan from the burning deserts of Africa and Arabia; and the Chinook in Western Canada.

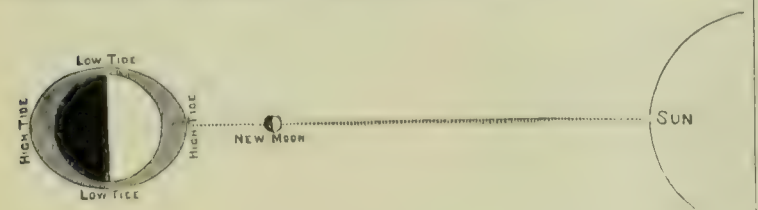
The ocean, like the air, is never at rest, being subject to similar influences; heat and cold producing currents, winds producing waves, and the attraction of the Sun and Moon producing tides. The rivers and streams which flow into it is much warmer than that through which it flows, and the rate of its current varies from two to five miles an hour.

The tides are principally caused by the attraction of the Moon. The water being composed of particles more easily moved than the land, is drawn towards the Moon as the earth revolves on its axis, and is thus raised in one place and lowered in another. This is called the ebb and flow of the tide. Spring or high tides are caused by the joint attraction of the Sun and Moon, and neap or low tides by their attraction in opposite directions. (See diagram, page 15.)

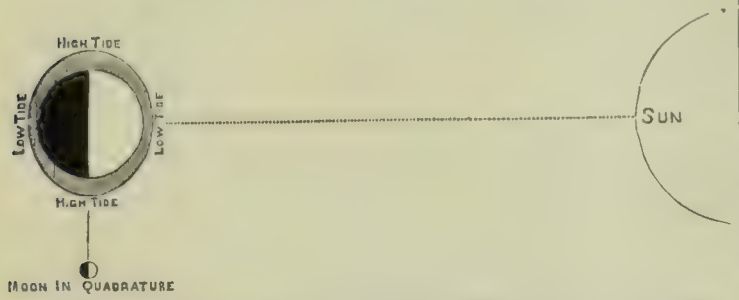
The heat of the Sun's rays acting on the water forms vapor, which, being lighter than the air, gradually ascends. It is generally invisible, and is carried along by the winds until the temperature of the air becomes colder, then it

condenses and forms clouds, and eventually falls to the Earth in the shape of rain, hail, or snow. Fogs or mists are clouds resting on the Earth's surface.

The **rainfall** on different parts of the globe varies generally in proportion to the heat; it is greatest in those regions where the evaporation is excessive. A little north of the Equator there is a region of almost continual rain. Most of the moisture precipitated from the air is not at once evaporated, but either sinks into the earth or is collected into brooks and rivers, and so passes to the sea.



Spring Tides: the attraction of the sun and moon exerted in the same line. In both figures the water is represented by the shaded portions.



Neap Tides: attraction of moon and sun at right angles; the moon tide being higher than the sun tide.

The water that sinks beneath the surface passes through the soil until it reaches some impenetrable layer of stone or clay, along which it flows until it rises again to the surface as a **spring.** In its progress the water sometimes passes through earth or rock containing iron or other minerals, with which it becomes impregnated, and appears as a **mineral spring.**

Some springs, coming from considerable depths, are warm, hot, or even boiling; their heat is attributable in some cases to volcanic, and in other cases to chemical, action, and are called **hot springs;** when they gush to a considerable height at intervals, they are known as *geysers.* (See illustration, page 18.)

The **climate** of a country is understood to mean the temperature and dryness, or moisture, of the atmosphere.

The climate is influenced by various circumstances; such as the prevalence of hot or cold winds, and the clearness or cloudiness of the sky; or the proximity of large bodies of water, which, not being so susceptible of change as the atmosphere, makes the neighboring lands warmer or colder according as they are warm or cold. The altitude of a place also affects its temperature. High mountains or elevated plains, even in the Torrid Zone, have a cold or cool climate. When a country is covered with forests its temperature is found to be about 10° colder than when well cleared and cultivated, as the trees prevent the Sun's rays from reaching the ground, which thus remains colder than it would otherwise be, and the temperature of the atmosphere is accordingly lowered.

VOLCANOES AND EARTHQUAKES.

The **surface of the Earth** is supposed to be a crust surrounding a central mass in a state of fusion. The heat is found to increase one degree for every fifty-five feet of depth. The action of this intensely heated interior on the solid crust surrounding it manifests itself in Volcanoes and Earthquakes.

Volcanoes are mountains, generally conical in shape, which send forth smoke and flames, and sometimes streams of red-hot stones and ashes. The opening which ejects these substances is called the **crater.**

An **Eruption** is generally preceded by rumbling noises and slight tremors of the Earth; then steam and gases are given off in great quantities, with a loud report, as of distant cannon. Lava rises in the crater, and either flows over its edges or forces its way through the mountain-side, and pours down in great streams into the neighboring valleys. Immense rocks are hurled hundreds of feet into the air. Showers of ashes obscure the heavens and settle upon the country for miles around. Many of the volcanoes of the globe are situated on a comparatively narrow band, surrounding the Pacific Ocean.

Earthquakes are indicated by tremblings of the Earth's crust; when severe they burst the ground open, throw down trees and buildings, and bury hundreds and sometimes thousands of people in the ruins. Earthquakes are most common in or near those countries where active volcanoes exist.

MINERALS.

In the Earth's crust are found many valuable minerals, the principal of which are:

Iron, the most useful metal. This is found in Canada,

the United States, Great Britain, Sweden, Russia, Belgium, France, Germany, and elsewhere.

Copper is found in Canada, the United States, Chili, Australia, Norway, and other countries.

Tin is found chiefly in Cornwall, in England, and in Malacca and Australia.

Zinc is found in Ontario, Prussia, Belgium, England, and the United States.

Lead is found in Great Britain, Spain, Canada, and the United States.

Gold, the most valuable of all the metals, is useful chiefly for coinage, and is most abundant in Australia, California, and British Columbia. It is found also in Ontario, Quebec, Nova Scotia, and other places. More than one hundred millions of dollars in value are mined annually.

Platinum, rarest of all metals, is found chiefly in the Ural Mountains, it is also found in Ontario.

Silver is mined chiefly in Mexico, California, Nevada, and South America, on the north shore of Lake Superior in Ontario, and in Norway, Russia, and Hungary, in Europe.

Mercury, or quicksilver, is found in California, Spain, and South America.

Nickel is a brilliant ductile metal, largely used for coinage. It is found principally in Ontario, England, Saxony, France, and New Caledonia.

Antimony is a bluish-white metal, generally used for alloying. It is found principally in Borneo; Quebec also yields some.

Coal is a valuable mineral, and perhaps the most important for adding to the wealth of a country. It is found in greatest abundance in many parts of Great Britain and the United States, and largely in Nova Scotia, New Brunswick, Vancouver Island, and elsewhere.

Sulphur is found chiefly in volcanic districts.

Salt is found in almost every part of the world, in the various forms of mines, mountains, plains, and springs, and is also produced by the evaporation of sea-water.

Other minerals are numerous, but are of less importance.

PLANTS.

Plants are found adapted to every climate, soil, and locality, and flourish in proportion to the amount of heat, light, and moisture which they receive.

In the **Torrid Zone** they are most numerous, and vegetation is most luxuriant. They become less numerous and more stunted as we approach the poles, till even trees refuse to grow, and only mosses or lichens are found, upon which animals subsist.

The **Temperate Zones** are distinguished for the abundance of their fruits and grains most useful to man, for the variety and strength of the timber drawn from their forests, and for their fibrous plants, such as cotton, flax, and hemp.

The **Frigid Zones** produce nothing but mosses and lichens, except in the more temperate parts, where a little barley and rye are grown, and a few pines and other hardy trees are found.

ANIMALS.

Animals, like plants, are to be found in every region, and adapted to every climate, soil, and locality.

Amid the luxuriant vegetation of the **Torrid Zone** animals attain the largest size; here, also, wild animals abound. The forests swarm with insects, reptiles, and birds of brilliant plumage.

In the **Temperate Zones** the more useful animals, such as the horse, cow, sheep, and deer, are abundant, and fewer wild animals are to be found.

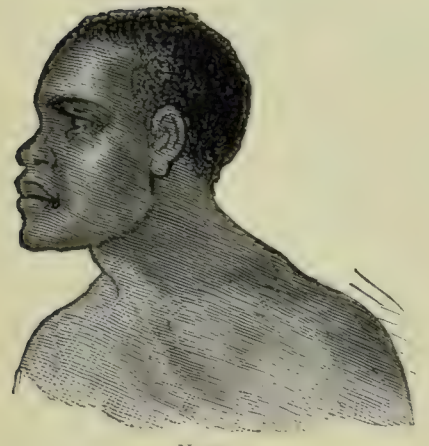
In the **Frigid Zones** comparatively few land animals are found, but sea-fowl are very numerous, and the sea abounds with the whale, seal, and walrus.

Some animals are common to all the zones, as the dog,

CAUCASIAN.

MONGOLIAN.

AUSTRALOID TYPE.



NEGRO.

sheep, and bear; and it is remarkable that their natural covering varies with the climate of the zone in which they are found.

AMERICAN.

MANKIND.

Mankind has been variously classified according to distinctions of form, color, skin, hair, etc. The system of Blumenbach, as the one most convenient for classification, forms the basis of nearly all subsequent schemes; and is as follows:

The **Caucasian,** including the principal nations of Europe, with the allied Asiatic races, jointly classed as Indo-European; and also the Semitic races, including the Arabs and Jews.

The **Mongolian,** including the Chinese, the Tartar tribes of Central Asia, and allied races; among these the Finns and Lapps of Europe are embraced.

The **Malay,** including the natives of the peninsula of Malacca, the chief islands of the Indian Archipelago, New Zealand, etc.

The **Ethiopian,** including the chief nations and tribes of Africa; and

The **American,** including all the nations and tribes native to North and South America.

The Papuans and other islanders are styled **Negritoes,** from their negro-like color of skin, and woolly hair. The Australians are equally dark, but with their hair generally straight.

STATES OF SOCIETY.

A **State of Society** is the condition of a people in respect to civilization. The principal states are the savage, barbarous, semi-civilized, and the civilized.

The **Savage** state is that of a people who live in tribes, and subsist mainly by hunting and fishing.

The **Barbarous** state is that of a people who possess flocks and herds, and rudely till the soil.

The **Semi-civilized** state is that of a people who have a settled society, live in towns, possess a written language, and have made considerable progress in the mechanical arts.

The **Civilized,** or enlightened, state is the condition of the most advanced nations, of those that have made the greatest progress in the arts, sciences, morals, and culture. —*Swinton.*

POLITICAL DIVISIONS.

The **Political Divisions** of the earth are Empires, Kingdoms, Principalities, and Republics.

An **Empire** consists of several large countries united under the rule of one monarch, generally called an Emperor.

A **Kingdom**, or **Monarchy**, consists of one or more countries governed by a King or Queen. It is called a **Limited Monarchy** when the power of the sovereign is restricted by law, and no laws can be made without the consent of the representatives of the people; and an **Absolute Monarchy** when the will of the monarch is supreme.

Principalities, Grand Duchies, and **Duchies** are small States governed by Princes, Grand Dukes, and Dukes.

A **Republic** is a country whose chief ruler, generally called a President, is chosen by the people for a limited period.

When a number of separate States or Provinces, each maintaining its own government and laws, unite for their common interests, and have one central and supreme government, it is called a **Confederation.**

A **Colony** is a country colonized or settled by immigrants from a parent State.

A **Dependency** is a country subject to the government of another.

States or Countries in Europe are commonly spoken of as **Powers,** and are graded according to their moral and political influence. The **Five Great Powers** of Europe are Great Britain, France, Germany, Russia, and Austria. The **Lesser Powers** are ranked according to their geographical position and their military and political influence.

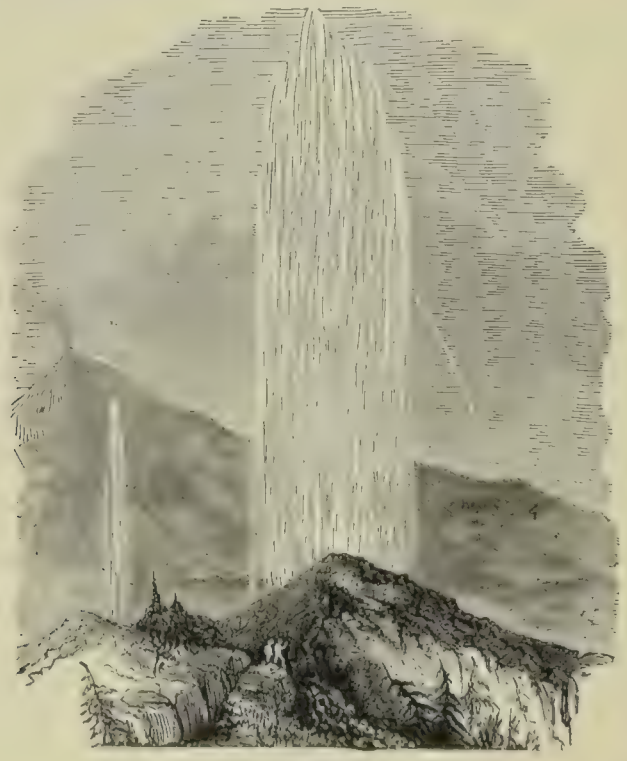
POPULATION AND RELIGION.

The **Population** of the Earth is estimated at about 1,467 millions, divided as follows:

	Population.	No. of persons to sq. mile.
N. America and West Indies	89,250,000	14
S. America	36,420,000	5
Europe	360,200,000	101
Asia	850,000,000	57
Africa	127,000,000	11
Oceania	4,750,000	1·4
Polar Regions	300,000	
Total	1,467,920,000	29

The **Inhabitants** are divided, according to their religious belief, into—

Christians	395,000,000
Jews	8,500,000
Mohammedans	165,000,000
Brahmins	210,000,000
Buddhists	520,000,000
Other Religions and Pagans	169,420,000
Total	1,467,920,000



GEYSERS.

AMERICA.

Area, 14,855,000 square miles, comprising two-sevenths of the land surface of the globe; the greatest length from north to south in a direct line being 9,400 miles; the greatest breadth from east to west, 3,500 miles.

America, or the **New World**, the only great division of the earth in the Western Hemisphere, is surrounded on all sides by water: on the north by the Arctic Ocean; on the west by the Pacific Ocean; on the south by the Antarctic Ocean; and on the east by the Atlantic Ocean.

It is composed of two enormous pear-shaped masses of land, both widest towards the north, tapering to a point towards the south, and joined by the Isthmus of Panama.

These two parts are called respectively **North** and **South America.**

America is remarkable for the extent and grandeur of its physical features; its mountain chains, rivers, lakes, and plains being the largest in the world.

The reputed discoverer of this continent was Christopher Columbus, a Genoese, who arrived at one of the Bahamas, in 1492. It was not, however, till 1498, on his third voyage, that he reached the mainland of South America; North America having been visited the year before by John Cabot, a Venetian in the service of England. The new continent was named after Amerigo Vespucci, a Florentine, who, in 1499, accompanied Hojeda, a Spanish commander, as astronomer, and wrote an account of his discoveries in America. It is now known that five hundred years before Columbus reached America, the Norsemen made settlements in Greenland, and visited the shores of Newfoundland, Nova Scotia, and New England.

In shape and general features the two great divisions resemble each other. The **Rocky Mountains** of North America, and the **Andes** of South America, stretch from north to south through the whole length of the continent, forming an almost unbroken chain, about 9,000 miles in length. In both divisions this chain is nearer the Pacific than the Atlantic, and both have smaller ranges of mountains in the east, at the broadest part of the continents; while the centre, between the two ranges, is one vast plain. Both portions may be divided into four great slopes—a northern, eastern, southeastern, and western; and the first three are drained in North America by the **Mackenzie, St. Lawrence,** and **Mississippi Rivers**; and in South America by the **Orinoco, Amazon,** and **La Plata Rivers.** And similarly in both continents, the sources of these rivers are divided by only a gentle rise.

The **Rivers of America** are especially remarkable for their length and volume of water, and also for the distance to which they are navigable. The lengths of the principal are:

		Miles.
North America,	Mississippi, with the Missouri	4,200
	St. Lawrence, with Lakes	2,200
	Mackenzie	2,500
South America,	Amazon, with the Ucayali	4,000
	La Plata, with the Paraguay	2,200
	Orinoco	1,500

All of these rivers, with their tributaries (except the Mackenzie, which flows into the Arctic Ocean), are navigable almost to their sources. This is owing to the vast plains through which they flow, and their very gradual fall towards the sea.

Compared with the other great divisions of the earth, America possesses but a small extent of coast-line, its length being only 43,000 miles, or, in comparison with its size, only equal to half of that of Europe. The coast is more broken in North than in South America. The latter presents one almost unbroken mass of land, with no deep indentations, and but few islands along its whole coast.

As the continent of America extends through all the zones, its climate and soil vary greatly. These will be found treated fully under the head of its separate countries. It is, however, in general, more humid in the Tropics than the Eastern Hemisphere, and subject to greater extremes of heat and cold in the higher latitudes. In the north, the frozen mass of the Arctic Ocean renders it much colder than in the same latitude in Europe, and along the whole of the Western coast the high mountain ranges attract the moisture, so that rain generally prevails there to a greater extent than on the Eastern coast.

When the Spaniards discovered the Western continent under Columbus and other commanders, they called the native inhabitants Indians, under the impression that they had reached the East Indies. The inhabitants of Mexico and Peru were comparatively civilized, had large towns, and fixed forms of government. They welcomed the newcomers, but soon had reason to repent of their hospitality, for the lust of conquest, and the rapacity of the Spaniards and Portuguese, soon enslaved them and destroyed their cities. These peoples have almost disappeared, or are represented by debased races rapidly becoming extinct. Many interesting relics remain to prove the great progress in civilization achieved by the native races of Mexico and Peru.

The Eskimos, a short, stunted race, occupy the extreme north, and subsist by hunting and fishing. The remaining native races are scattered over the whole continent, living by the chase, and consisting of a great number of different tribes, speaking different languages.

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NORTH AMERICA.

Area, 8,200,000 square miles; greatest length from north to south, including Central America, 4,700 miles; greatest breadth from east to west, 3,200 miles; population, inclusive of Central America and West Indies, 89,250,000.

North America comprises the northern part of the Continent of America, and is joined to South America by the Isthmus of Panama. It is bounded on the north by the Arctic Ocean; on the west and south by the Pacific Ocean; and on the east by the Atlantic Ocean.

Its surface is divided into four great regions by the grand chain of the Rocky Mountains, and the lesser chain of the Alleghanies; consisting of the Northern slope towards the Arctic Ocean, the Pacific slope, the great central plain extending from the sources of the Mississippi to the Gulf of Mexico, and the Eastern slope towards the Atlantic Ocean.

The **Rocky Mountains** form the great backbone, as it may be termed, of North America, extending from the Arctic Ocean southward, through the whole length of the continent. The **Cordilleras** of Mexico and Guatemala may be considered as a continuation of the chain, although it is somewhat interrupted by the high plateaus of Mexico. The Rocky Mountains rise mostly from a high table-land, which is, in some places, 5,000 feet above the sea. They occupy a region from 40 to 200 miles in breadth, and consist in some parts of two or three parallel ranges. Their highest elevations are attained in the Dominion of Canada and in Colorado —Mounts Brown and Hooker (in British Columbia) being about 16,000 feet high. The Cordilleras rise still higher, containing the celebrated volcanoes of Popocatepetl, Agua, and Orizaba, the first nearly 18,000 feet high.

Parallel with the Rocky Mountains along the Pacific coast are several successive ranges of mountains, which have been called the Alps of the Pacific, extending from Mexico to Alaska, and terminated by the lofty volcano, Mount St. Elias, 17,900 feet high. These chains are known by different names, as the **Sierra Madre,** in Mexico; the **Coast Range,** and the parallel range of the **Sierra Nevada,** in California; and the **Cascade Mountains,** in Oregon, Washington , and British Columbia.

The **Alleghany Mountains,** or Appalachian chain, extend from the north of the State of Alabama to the Gulf of St. Lawrence, about 1,500 miles in length. Different portions of the same range are known by the names of the **Cumberland Mountains** in Tennessee, the **Black Mountains** in North Carolina, the **Blue Mountains** in Virginia, the **Catskill Mountains** in New York, the **Green Mountains** in Vermont, the **White Mountains** in New Hampshire, and the **Notre Dame Mountains** in Quebec. The name Alleghany belongs properly to the eastern and principal range in Virginia and Pennsylvania. Their highest summits are in North Carolina, where they rise to the height of 6,700 feet, but elsewhere they seldom rise over 4,000 feet.

Owing to the vast plains of North America, and the gentle slope of the land, the rivers are large and numerous, and navigable far into the interior of the country. The **St. Lawrence,** with the great lakes, is navigable for upwards of 2,000 miles; the **Mississippi,** with the **Missouri,** for upwards of 4,000, and many of the other great rivers almost to their sources. In the Great Central Plain there is scarcely a watershed 1,500 feet above the level of the sea, and many of the large rivers take their rise so near each other that it is difficult to tell in which direction the land slopes.

The principal Rivers of North America are:

In the north, the *Yukon, Mackenzie, Back* or *Great Fish, Churchill, Saskatchewan,* and *St. Lawrence.*

In the east, the *St. John, Connecticut, Hudson, Susquehanna, Delaware, Potomac,* and *Savannah.*

In the centre and south, the *Alabama,* the *Mississippi,* with its affluents, the Illinois, Ohio, Missouri, Arkansas, and Red Rivers, and the *Rio Grande-del-Norte.*

In the west, the *Colorado, Columbia,* and *Fraser.*

The principal Lakes of North America are in the northern part, and are either in the Dominion of Canada, or on the boundary between it and the United States. They are—

Superior, Michigan, Huron, Erie, Ontario, Great Bear, Great Slave, Athabasca, Winnipeg, Winnipegosis, Lake of the Woods, and *Nipigon.*

South of these the only lakes worthy of mention are—

Lake Champlain, just touching the Canadian frontier; *Great Salt Lake* in Utah; and *Nicaragua,* in Central America.

The outline of North America is much more broken than that of South America, especially on the north and east, but compared with the extent of coast-line, the Islands, Gulfs, Promontories, etc., are not numerous.

The principal Islands are:

In the north, *Greenland, Baffin Land, Prince Albert Land, Melville, Banks,* and *Southampton.*

In the west, *Vancouver, Queen Charlotte, Prince of Wales, Baranoff,* and *Aleutian Isles.*

In the south, the *Bermudas,* and the *West India Islands,* comprising the Bahamas and Greater and Lesser Antilles.

In the east, *Newfoundland, Cape Breton, Prince Edward Island, Anticosti,* and *Long Island.*

The principal Gulfs, Bays, and Straits are:

In the north, *Davis Strait* and *Baffin Bay*, *Lancaster Sound*, *Barrow Strait*, *Melville Sound*, *Banks Strait*, *Fox Channel*, *Hudson Strait*, and *Hudson Bay* and its southern extremity, *James Bay*.

In the east, the *Straits of Belle Isle*, *Gulf of St. Lawrence*, *Bay of Fundy*, and *Chesapeake Bay*.

In the south, *Florida Strait*, *Gulf of Mexico*, *Caribbean Sea*, and *Bays of Campeachy* and *Honduras*.

In the west, the *Gulf of California*, *Juan de Fuca Strait*, *Gulf of Georgia*, *Behring Sea* and *Behring Strait*.

The principal Capes are:

In the east, *Farewell*, *Chidley*, *Charles*, *Race*, *Breton*, *Sable*, *Cod*, *Hatteras*, *Sable* (Florida), *Catoche*, *Gracias a Dios*.

In the west, *Corrientes*, *San Lucas*, *Mendocino*, *Flattery*, and *Prince of Wales*.

In the north, *Lisburne*, *Barrow*, *Bathurst*, and *Columbia*.

The Peninsulas of North America are:

In the east, *Labrador*, *Nova Scotia*, *Florida*, and *Yucatan*.
In the west, *Alaska*, and *Lower California*.
In the north, *Boothia* and *Melville*.

North America, owing to its great extent from north to south, varies greatly in climate, according to the latitude. In general, it averages about 10° hotter in summer and 10° colder in winter than in the same latitude in Europe. In the north and east it is much colder, owing to the great extent of the frozen Arctic Ocean, from which cold currents are continually flowing southward. In the south it is hot, but varies according to the elevation of the land above the level of the sea. On the west coast it is in general warmer and more moist than in the east. It is remarkable, that about the centre of the Dominion of Canada, along the Saskatchewan Valley to the Rocky Mountains, the climate is almost the same as in Ontario, although 10° higher in latitude, or nearly 700 miles farther north.

The soil of North America is generally rich and productive, the only barren parts of any extent being the Arctic Regions and the desert tracts in the United States along each side of the Rocky Mountains. Grain, timber, cotton, sugar, and tobacco form the great staple products.

Among the larger wild animals in North America are the polar, grizzly, and black bears, wolf, lynx, puma or panther, moose, deer, walrus, alligator, etc.; smaller fur-bearing animals, such as the beaver, otter, mink, marten, seal, and others, abound in the north. The great prairies formerly abounded with buffalo and wild fowl; and in the south wild horses are still numerous. The sea abounds with fish.

All the principal minerals are found in North America; gold, silver, copper, iron, nickel, and lead being found in large quantities. It is estimated that the coal-beds of North America are more than ten times as large as all the others in the world put together, except, perhaps, those of Africa.

North America has been colonized by settlers from Europe, principally from the British Islands, who, chiefly within the last 200 years, have explored, settled, and cultivated a territory larger than Europe; have built large cities, and carry on an extensive commerce with every quarter of the globe; and are distinguished for their energy and enterprise in agriculture, manufactures, and commerce, for the extensive facilities for rapid communication they possess, and for their general intelligence and cultivation.

North America is divided into

Dominion of Canada and Newfoundland.	Mexico.
United States of America.	Central America.
	West India Islands.

Greenland.

1. Puma. 2. Eagle. 3. Antelope. 4. Rocky Mountain Goat. 5. Lynx. 6. Rocky Mountain Sheep. 7. Moose. 8. Grizzly Bear. 9. Stag. 10. Wild Turkey. 11. Bison. 12. Musk Ox. 13. Eider Duck. 14. Auk. 15. White Bear. 16. Seal. 17. Walrus. 18. Pelican. 19. Canvas Back Duck. 20. Beaver. 21. Otter.

To the Teacher.— The Puma or Cougar, sometimes called the American Lion, and popularly known as the Painter, was formerly found as far north as the Great Lakes, but is now found no farther north than Mexico. Eagles, of various species, are found in every part of the continent. The Antelope, or Prong-horn, is found on the western plains. The Rocky Mountain Goat, a sort of Antelope, and the Rocky Mountain Sheep, or Big-horn, inhabit the inaccessible peaks of the Rocky Mountains. The Lynx, or Wild Cat, is found in all eastern North America. The Moose, or Elk, is found in all parts of Canada, as far north as the Arctic Ocean. The Grizzly Bear is found in the Rocky Mountains as far south as Mexico. Deer, of various species, are found in every part of the continent. The Wild Turkey was formerly common in Ontario and in the Eastern States, and especially in the Southern States. The Bison, or Buffalo, not long ago incredibly numerous on all the northern prairies, is now found only in the loneliest plains of the North-west. The Musk Ox, or Musk Sheep, inhabits the barren plains of the far North-west. The Eider Duck, the Auk, and the Walrus, are found in the northern and north-eastern coast regions of the continent. The White Bear is found only on the shores of the Arctic Ocean. The Brown Pelican is found in Central America and the West Indies; the White Pelican in summer migrates from the Gulf States to the lake regions of north-western Canada. The Canvas Back Duck is found on the coasts of the middle Atlantic States. The Beaver, formerly common throughout all the northern part of the continent, is now found chiefly in the loneliest parts of Canada. The Seal is found along the coasts of all the cold ocean waters of the continent. The Otter is found in all parts of Canada.

PACIFIC
MOUNTAIN
"STANDARD TIME"
120
105
ALASKA
PACIFIC OCEAN
NORTHWEST TERRITORY
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
KEEWATIN
MACKENZIE
YUKON TERR.
BANKS LAND
VICTORIA LAND
WOLLASTON LAND
PR. ALBERT LAND
PR. OF WALES LAND
QUEEN CHARLOTTE IS.
VANCOUVER I.
Great Bear Lake
Great Slave L.
L. Athabasca
Great Fish or Back R.
Mt. St. Elias 14,970
Mt. Fairweather 14,703
Mt. Crillon 13,500
Mt. Wrangell
Mt. Logan 19,539
Mt. Murchison
Mt. Hooker
Mt. Brown
Mt. Edith
Mt. Goodsir
Mt. Temple
Mt. Assiniboine
Mt. Robson
Mt. Hooker
Mt. Cheadle
Mt. Lefroy
Mt. Victoria
Mt. Stephen
Mt. Dawson
Mt. Head
Mt. Sir Donald
Mt. Begbie
Mt. Sir Sandford
Mt. Moberly
Mt. Brown
Mt. Hooker
Mt. Murchison
Mt. Edith
Mt. Goodsir
Mt. Temple
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Mt. Victoria
Mt. Stephen
Mt. Dawson
Mt. Head
Mt. Sir Donald
Mt. Begbie
Mt. Sir Sandford
Mt. Moberly
Ft. Yukon
Ft. Macpherson
Ft. Selkirk
Ft. Norman
Ft. Simpson
Ft. Providence
Ft. Resolution
Ft. Liard
Ft. Halkett
Ft. Mumford
Ft. McLeod
Ft. Vermilion
Ft. Chipewyan
Ft. Caribou
Ft. Assiniboine
Ft. Edmonton
Ft. Albert
Ft. Carlton
Ft. Pelly
Ft. Alexander
Ft. Enterprise
Ft. Rae
Ft. Titue
Ft. Walsh
Ft. Macleod
Ft. Calgary
Ft. Shepherd
Ft. Hope
Ft. Yale
Ft. Lytton
Ft. Kamloops
Ft. Lillooet
Ft. Nelson
Ft. Churchill
Ft. Alexander
Ft. Pelly

DOMINION OF
CANADA
ENGLISH MILES
0 100 200 300 400 500
BAFFIN LAND
DAVIS STRAIT
GREENLAND
ARCTIC CIRCLE
HUDSON STRAIT
HUDSON BAY
LABRADOR PENINSULA
NEW FOUNDLAND
ENGLISH MILES
0 40 80
ATLANTIC OCEAN
Greenwich
85 80 75 70 65 60

Dominion Parliament Buildings, Ottawa.

DOMINION OF CANADA.

Area, 3,456,383 square miles; about as large as Europe, and comprising nearly one-sixteenth part of the land surface of the globe. Greatest extent from east to west, 3,500 miles, and from north to south, about 1,400 miles; population, about 5,000,000.

The **Dominion of Canada** is bounded on the north by the Arctic Ocean and Baffin Bay; on the west by the Territory of Alaska, belonging to the United States, and the Pacific Ocean; on the south by the United States, the Great Lakes, and the Atlantic Ocean; and on the east by the Gulf of St. Lawrence, the Atlantic Ocean, and Davis Straits.

The Dominion of Canada comprises the whole of British North America, except Newfoundland and Labrador, and consists of the Provinces of

Ontario,	Prince Edward Island,
Quebec,	Manitoba,
New Brunswick,	British Columbia,
Nova Scotia,	

the Districts of Keewatin, Assiniboia, Saskatchewan, Alberta, and Athabasca, and the North-west and North-east Territories. These districts and territories comprise the lands formerly called the Hudson Bay Territory.

The chief physical features of the Dominion are as follows:

In the west, the **Rocky Mountains,** extending from the Arctic Ocean to the United States, from north to south, and the parallel range of the **Cascade Mountains,** near the Pacific Coast, both of which here attain their highest elevations.

In the centre, the great northern slope towards the Arctic Ocean, with its numerous lakes, rivers, and marshy tracts, chiefly drained by the **Mackenzie** and **Great Fish Rivers;** and the large inland sea, Hudson Bay, from which that part of the country formerly derived its name.

In the east, the great chain of Lakes marking the boundary between Canada and the United States, containing fully one-third of the fresh water on the globe, and forming, with the **River St. Lawrence,** an unbroken chain of water communication for over 2,000 miles.

In the eastern and western portions of the Dominion, the country is well wooded, and timber is largely exported; but the centre consists of an immense tract of level or gently undulating prairie land, with only a few trees along the courses of the rivers, but producing abundance of nutritious grasses.

Although comprising such an extensive area, the settled portion of the Dominion is very small, consisting chiefly of a long narrow strip of land, seldom exceeding 100 miles in breadth, along the Lakes and the River St. Lawrence in Ontario and Quebec; the maritime provinces of Nova Scotia, New Brunswick, and Prince Edward Island, and parts of Manitoba, British Columbia, and the Districts between, chiefly along the Assiniboine and Saskatchewan Rivers, the Canadian Pacific Railway, and the southern part of Vancouver Island.

FUR-BEARING ANIMALS.

The principal mountain ranges of Canada are the **Rocky Mountains** and the **Cascade Range,** in British Columbia; the **Wotchish Mountains,** between Quebec and the North-east Territory; the **Notre Dame Mountains,** a continuation of the Appalachian chain in Quebec; the **Laurentide Hills,** on the north shore of the St. Lawrence; and the **Cobequid Mountains,** in the north of Nova Scotia.

Canada is well watered, and is remarkable for the number and extent of its inland lakes. The rivers are numerous and important. The principal are:

In British Columbia: the *Fraser River*, with its tributaries, flowing into the Gulf of Georgia; the *Skeena* or *Simpson River*, flowing into the Pacific Ocean; and the *Columbia River*, passing into the United States, where it also flows into the Pacific Ocean.

In the North-west Territory: the *Mackenzie River*, formed, under the name of *Slave River*, by the junction of the *Athabasca* and *Peace Rivers*, flowing into the Arctic Ocean, after a course of about 2,500 miles; the *Coppermine*, and *Back* or *Great Fish Rivers*, also flowing into the Arctic Ocean; the *Saskatchewan*, *Assiniboine*, and *Red Rivers*, flowing into Lake Winnipeg, and thence as the *Nelson River*, into Hudson Bay; the *Churchill*, *Severn* and *Albany Rivers*, flowing into Hudson Bay.

In Ontario and Quebec: the *St. Lawrence*, draining the Great Lakes, and flowing into the Gulf of St. Lawrence, with its chief tributaries, the *Ottawa*, *St. Maurice*, and *Saguenay*.

In New Brunswick: the *St. John*, rising in the United States, and flowing into the Bay of Fundy; and the *Restigouche* and *Miramichi*, flowing into the Gulf of St. Lawrence.

The principal Lakes of Canada are:

In the North-west and North-east Territories: *Great Bear*, *Great Slave*, *Athabasca*, *Wollaston* and *Reindeer*, in the west; *Mistassini* and *Clear-water*, in the east.

In Manitoba *Winnipeg*, *Winnipegosis*, and *Manitoba*.

In Ontario: *Lake of the Woods*, *Huron*, *Superior*, *St. Clair*, *Erie*, *Ontario*, *Simcoe*, *Nipissing*, and *Nipigon*.

Between Ontario and Quebec: *Temiscaming*.

In Quebec: *Grand Lake* and *Lake St. John*.

The **coast-line** of Canada is much broken, differing in this respect from the remainder of the continent. The north shore, owing to the enormous masses of ice in the Arctic Ocean, is almost inaccessible.

On the east are *Prince Edward*, *Anticosti*, *Cape Breton*, and *Magdalen Islands;* the *Gulf of St. Lawrence*, *Strait of Belle Isle*, *Northumberland Strait*, *Gut of Canso*, and *Bay of Fundy*.

On the north are *Cumberland*, *Southampton*, *Cockburn*, *Melville*, and numerous other islands; *Baffin Bay* and *Davis Strait;* *Barrow* and *Banks Straits*, *Melville* and *Lancaster Sounds;* the *Gulf of Boothia;* *Hudson Strait* and *Hudson Bay*, with its southern extremity, *James Bay*.

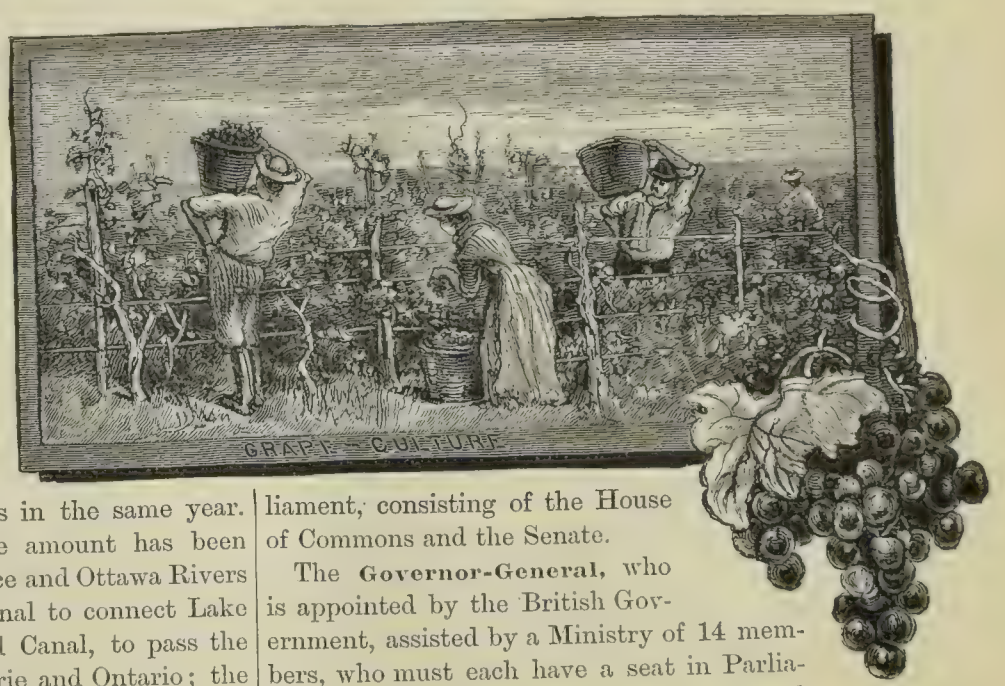
On the west coast are *Vancouver*, *Queen Charlotte*, and numerous other islands; *Juan de Fuca Strait*, the *Gulf of Georgia*, and *Queen Charlotte Sound*.

The **climate** of Canada is temperate, dry, and healthy, but more inclined to extremes than in the same latitude in Europe. In the east it is colder than in the west, the temperature of Quebec, Northern Ontario, and Manitoba being colder than that of British Columbia. The soil is very fruitful in almost every section. In the older provinces all kinds of grain are grown in abundance, and largely exported; while grapes, melons, peaches, besides more hardy fruits, are extensively cultivated in the more southern parts. Ontario is essentially an agricultural country. In the other provinces it is colder, but vegetation is very rapid. In Quebec the thermometer sometimes falls in winter as low as 30° to 40° below zero, and the St. Lawrence is closed by ice during five months of the year. Although the snow and ice of winter form the great highways of traffic, especially in the interior of the country, still the people always look forward anxiously to the opening of navigation.

Canada is rich in **minerals.** Gold is extensively found in British Columbia and Nova Scotia and Ontario; iron and

copper in Nova Scotia, Quebec, Ontario, and British Columbia; silver in the last three provinces; nickel in Ontario; coal in Nova Scotia, British Columbia, the North-west Territories, and New Brunswick; petroleum in Ontario and the North-west; salt in Ontario and New Brunswick; gypsum in Nova Scotia, New Brunswick, and Ontario; phosphate of lime in Ontario and Quebec; asbestos in Quebec and elsewhere.

The principal **industries** are, agriculture in all the provinces except British Columbia; the fisheries in all those bordering on the sea; lumbering in Nova Scotia, New Brunswick, Quebec, and Ontario; mining in Nova Scotia and British Columbia. Manufactures of woollens, iron, leather, cotton, tobacco, etc., are steadily increasing as the country progresses.



Railways, which in a new country are the pioneers of civilization, have received a great impetus of late years, and there are now in existence about 14,700 miles of railway in the Dominion. The principal railway systems are the Canadian Pacific, operating 5,540 miles in 1891; the Grand Trunk, 3,143 miles; and Government lines, including the Intercolonial, 1,184 miles in the same year. In order to assist navigation, a large amount has been expended on canals: on the St. Lawrence and Ottawa Rivers to overcome the rapids; the Rideau Canal to connect Lake Ontario with the Ottawa; the Welland Canal, to pass the Falls of Niagara and connect Lakes Erie and Ontario; the Chambly Canal, connecting Lake Champlain with the St. Lawrence; the Sault Ste. Marie Canal, connecting Lakes Superior and Huron, and others.

The Welland Canal, connecting Lakes Erie and Ontario, is 27 miles long, and admits vessels drawing 14 feet of water.

Quebec, which is the oldest settled part of the Dominion, is peopled principally by the descendants of the original French settlers, some of whom are also to be found in the other provinces; **Ontario, Nova Scotia, New Brunswick,** and **Prince Edward Island,** by the descendants of the United Empire Loyalists (who left the United States when those States became independent), and by settlers chiefly from the British Islands; **Manitoba** and **British Columbia,** and the districts commonly known as the *North-west Territories,* have been peopled but recently by settlers from the other provinces and elsewhere.

The original inhabitants, the Indians, now remaining, belong principally to the Huron, Chippewa, Mohawk, and Micmac tribes in the east; and to the Cree, Saulteaux, and Blackfeet tribes in the west. Lands have been reserved for them in the various provinces, and in the more settled parts they have their own villages and houses, and cultivate their own farms.

The **Dominion of Canada is a Confederation,** each of the provinces of which it is composed having its own separate Legislature and Executive Council, with a Lieutenant-Governor appointed by the Dominion Government.

The **Government of the Dominion** is similar to that of Great Britain, on which it is modelled, and consists of the Sovereign (represented by the Governor-General), and a Parliament, consisting of the House of Commons and the Senate.

The **Governor-General,** who is appointed by the British Government, assisted by a Ministry of 14 members, who must each have a seat in Parliament, and who are responsible for the good government of the country.

The **House of Commons** consists of members who are elected by the people for one Parliament only, which cannot exceed five years. The number of members from each province is proportioned to the population, and provision is made for increase or decrease after each decennial census, the number apportioned to Quebec being fixed permanently at 65, and made the basis of calculation.

The **Senate** consists of 80 members, appointed for life by the Crown.

The number of Members to each Province is:

	Commons.	*Senate.*
Ontario	92	24
Quebec	65	24
New Brunswick	16	10
Nova Scotia	21	10
Manitoba	5	3
British Columbia	6	3
Prince Edward Island	6	4
North-west Territories	4	2
The Dominion	215	80

It requires the assent of all three branches of the Government (the Governor-General, the Senate, and the House of Commons) for any bill to become law; but the House of Commons alone has the privilege of introducing money bills.

The Dominion Government regulates all matters connected with trade and navigation, fisheries, currency, banking, the customs and excise, criminal law, militia and defence, the postal service, etc.; but the Provincial Governments have control of all local matters.

The **commerce** of Canada has largely increased, chiefly within the last ten years; the imports now amounting to about 120,000,000 dollars yearly; and the exports, consisting principally of grain and lumber, to about 98,500,000 dollars.

The annual **revenue** of the Dominion amounts to upwards of 39,000,000 dollars, and the expenditure to about the same. The debt is about 37,000,000 dollars, principally incurred by the construction of public works.

From the revenue of the Dominion, subsidies are paid to the Provincial Governments, which are as follows:

Ontario	$1,196,873
Quebec	959,253
New Brunswick	483,546
Nova Scotia	432,823
British Columbia	212,151
Prince Edward Island	183,515
Manitoba	435,596
	$3,903,757

The system of **education** in Canada is very complete, and is liberally supported by the Provincial Governments. There are a great many colleges in the country, most of which possess University powers.

There is no established **religion** in Canada, all denominations enjoying, in the main, equal privileges.

Passing over the discoveries of the Norsemen, from Iceland, in the tenth century, Canada, or rather Newfoundland, was discovered by Sebastian Cabot in 1497; and in 1535, Jacques Cartier sailed up the St. Lawrence as far as the Lachine Rapids, and took possession of the country in the name of the King of France. Port Royal (now Annapolis), Quebec, and Montreal were the first towns founded by the French, and settlements were gradually extended into the country, with outposts at Niagara, Detroit, and a few other points. After various vicissitudes, Quebec was taken by the British, under Wolfe, in 1759; and in 1763 Canada was ceded to Britain; the population then amounting to 69,000. Under the treaty, the French Canadians retain their own religion and laws (except the criminal law, which is that of England), and are guaranteed equal rights with other British subjects. The French language, as well as the English, is still used in Parliament, and in all public documents of the Dominion Government, as well as in the Legislature and the law courts of Quebec. The provinces of Ontario, Quebec, Nova Scotia, and New Brunswick were united under the name of the Dominion of Canada, on July 1, 1867.

Falls of Niagara.

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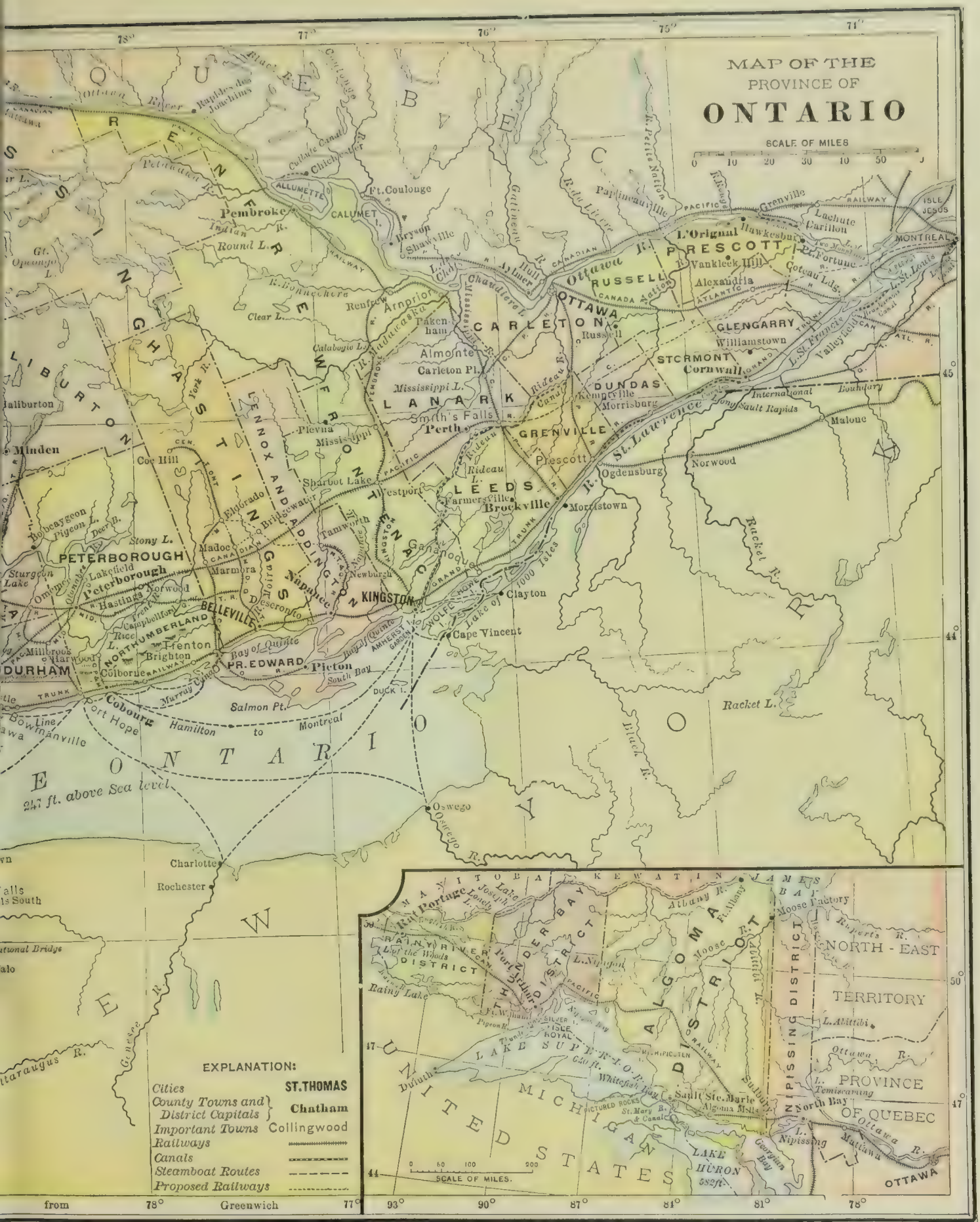
MAP OF THE
PROVINCE OF
ONTARIO
SCALE OF MILES
0 10 20 30 40 50
EXPLANATION:
Cities ST.THOMAS
County Towns and District Capitals Chatham
Important Towns Collingwood
Railways
Canals
Steamboat Routes
Proposed Railways
SCALE OF MILES.
PRESCOTT
RUSSELL
OTTAWA
CARLETON
GLENGARRY
STORMONT
DUNDAS
LANARK
GRENVILLE
LEEDS
LENNOX AND ADDINGTON
FRONTENAC
PETERBOROUGH
HASTINGS
PRINCE EDWARD
NORTHUMBERLAND
DURHAM
KINGSTON
BELLEVILLE
HALIBURTON
NIPISSING DISTRICT
ALGOMA DISTRICT
THUNDER BAY DISTRICT
RAINY RIVER DISTRICT
NORTH-EAST TERRITORY
PROVINCE OF QUEBEC
LAKE SUPERIOR
LAKE HURON
Ottawa
Montreal
Toronto
Kingston
Cobourg
Hamilton
Port Hope
Belleville
Peterborough
Brockville
Prescott
Ogdensburg
Cornwall
Malone
Norwood
Morristown
Clayton
Cape Vincent
Oswego
Rochester
Charlotte
Duluth
Sault Ste. Marie
North Bay
Pembroke
Renfrew
Arnprior
Carleton Pl.
Almonte
Smith's Falls
Perth
Westport
Napanee
Trenton
Brighton
Colborne
Picton
Lindsay
Minden
Coe Hill
Bobcaygeon
Fenelon Falls
Bridgewater
Madoc
Marmora
Campbellford
Millbrook
Port Perry
Whitby
Oshawa
Bowmanville
Port Hope
Cobourg
Salmon Pt.
Grand Island
Racket R.
Racket L.
Black R.
Ottawa R.
St. Lawrence R.
Rideau R.
Rideau Canal
Mississippi L.
Clear L.
Round L.
Stony L.
Sturgeon Lake
Pigeon L.
Deer R.
Gt. Opeongo L.
Petawawa R.
Indian R.
Bonnechere R.
Madawaska R.
Mississippi R.
York R.
Gatineau R.
Lievre R.
Papineauville
Hawkesbury
Lachute
Carillon
Grenville
Vankleek Hill
Alexandria
Gotteau Lds.
L. St. Louis
Williamstown
Valleyfield
Isle Jesus
Montreal
Two Mountains
Aylmer
Chaudiere L.
Calabogie L.
Kempville
Morrisburg
Farmersville
Tamworth
Newburgh
Sharbot Lake
Calumet I.
Allumette I.
Chichester
Ft. Coulonge
Petawawa
Bryson
Shawville
Pakenham
Russell
Lake of 1000 Isles
Wolfe Island
Amherst Island
Bay of Quinte
Prince Edward Co.
Murray Canal
Duck I.
South Bay
Lake Ontario
Lake Erie
Niagara R.
Welland Canal
Chippewa
Niagara Falls
Buffalo
Lockport
Rochester
Oswego
Oswego R.
Genesee R.
Tonawanda
Batavia
Attica
Albion
Medina
Lockport
Rapids des Joachims
Ottawa River
Gatineau R.
Lievre R.
Black R.
Gull R.
Mississippi R.
Madawaska R.
Bonnechere R.
Petawawa R.
Indian R.
Round L.
Clear L.
Mississippi L.
Calabogie L.
Gt. Opeongo L.
Pigeon L.
Deer R.
Stony L.
Sturgeon Lake
Rice L.
Trent R.
Moira R.
Napanee R.
Salmon R.
Otonabee R.
Gananoque
Rideau L.
Rideau R.
Rideau Canal
Long Sault Rapids
St. Lawrence R.
International Boundary
Valleyfield Canal
L. St. Louis
Isle Jesus
Two Mountains
Gotteau R.
Vankleek Hill
Alexandria
Lachute
Carillon
Grenville
Papineauville
Lievre R.
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Calabogie L.
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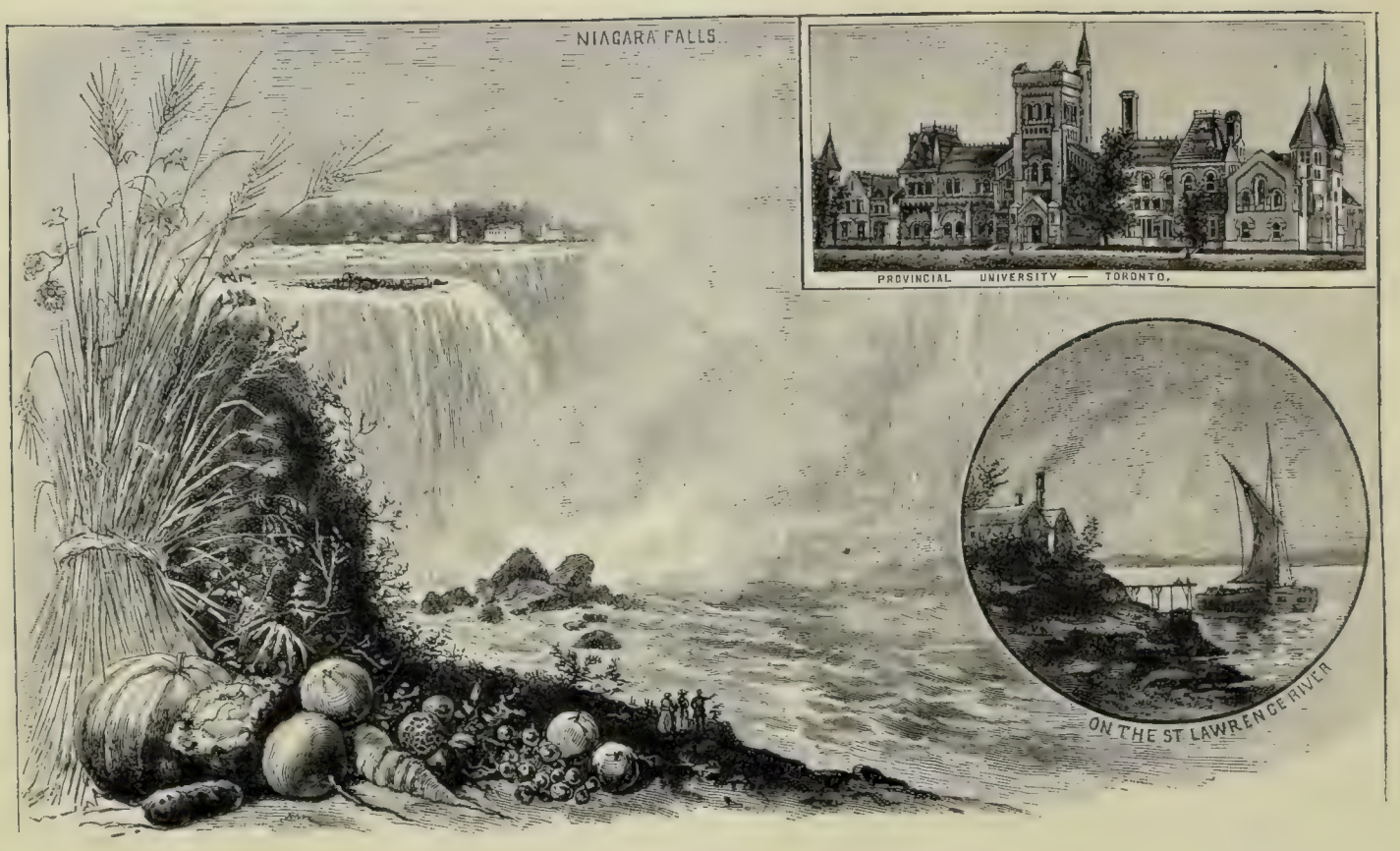
Buffalo
Lockport
Rochester
Oswego
Oswego R.
Genesee R.
Tonawanda
Batavia
Attica
Albion
Medina
Lockport
Rapids des Joachims
Ottawa River
247 ft. above Sea level
MANITOBA
KEWATIN
JAMES BAY
Albany R.
Moose Factory
Roberts R.
Moose R.
Abbitibi R.
Ottawa R.
Temiscaming
L. Nipissing
Mattawa R.
Georgian Bay
Whitefish Bay
St. Mary R.
& Canal
Pictured Rocks
Michipicoten
Isle Royal
Pigeon R.
Thunder Bay
Port Arthur
Fort William
Nepigon
Lake of the Woods
Rainy Lake
Rainy R.
Lake of the Woods
Kat Portage
Lonely
Joseph
Duluth
Sault Ste. Marie
Algoma Mills
North Bay
L. Abbitibi
L. Nipissing
Temiscaming
Ottawa R.



Scenes in Ontario.

ONTARIO.

Area, about 222,000 square miles; population, 2,200,000; persons to square mile, 9.

Ontario, formerly called **Upper Canada,** or **Canada West,** comprises that portion of the Dominion of Canada lying between the Ottawa River on the east and the Lake of the Woods on the west, James Bay and the Albany River on the north, and the Great Lakes on the south. It is divided into forty-nine counties, including one provisional county, and six districts, which may be classed in four sections: those north of Lakes Superior and Huron, those in the Western Peninsula, those on Lake Ontario, and those on the St. Lawrence River.

The **Districts** north of Lakes Superior and Huron are—

Districts.	*Chief Towns.*
Rainy River District	Rat Portage.
Thunder Bay "	Port Arthur, Fort William.
Algoma "	Sault Ste Marie.

The **Western Counties,** or those occupying the peninsula nearly surrounded by Lakes Ontario, Erie, Huron, and Simcoe, are—

Counties.	*Chief Towns.*
Essex	Sandwich, Windsor, Amherstburg.
Kent	Chatham, Bothwell, Ridgetown.
Elgin	St. Thomas, Port Stanley, Port Burwell, Aylmer.
Norfolk	Simcoe, Port Dover, Port Rowan.
Haldimand	Cayuga, Caledonia, Dunnville, Hagersville.
Welland	Welland, Thorold, Port Colborne, Niagara Falls.
Lincoln	St. Catharines, Niagara, Port Dalhousie.
Wentworth	Hamilton, Dundas.
Halton	Milton, Georgetown, Oakville, Burlington.
Peel	Brampton, Streetsville, Port Credit.
York	Toronto, Newmarket, Aurora.
Middlesex	London, Strathroy, Parkhill, Glencoe.
Oxford	Woodstock, Ingersoll, Norwich, Tilsonburg.
Brant	Brantford, Paris.
Perth	Stratford, St. Mary's, Mitchell, Listowel.
Waterloo	Berlin, Galt, Preston, Waterloo.
Wellington	Guelph, Elora, Fergus, Mount Forest.
Dufferin	Orangeville.
Lambton	Sarnia, Petrolia, Point Edward.
Huron	Goderich, Clinton, Seaforth.
Bruce	Walkerton, Southampton, Port Elgin, Kincardine.

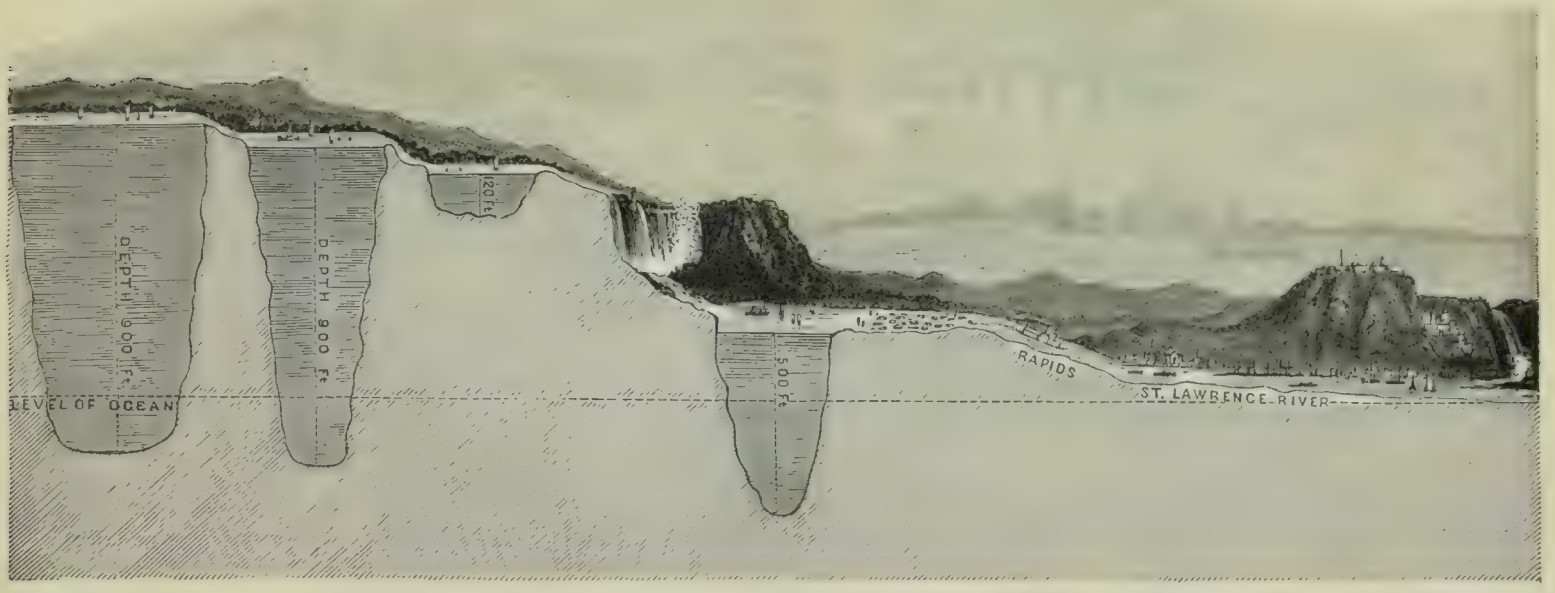
Counties.	*Chief Towns.*
Grey . . .	Owen Sound, Durham, Meaford.
Simcoe . . .	Barrie, Bradford, Collingwood, Orillia, Penetanguishene, Midland.

Central Counties, North of Lake Ontario.

Counties.	*Chief Towns.*
Ontario . .	Whitby, Oshawa, Uxbridge, Port Perry.
Durham . .	Port Hope, Newcastle, Bowmanville, Millbrook.
Victoria . .	Lindsay, Omemee, Bobcaygeon.
Northumberland .	Cobourg, Brighton, Colborne.
Peterborough .	Peterborough, Ashburnham, Hastings.
Haliburton (*Prov.*)	Minden.
Prince Edward .	Picton.
Hastings . .	Belleville, Trenton, Madoc, Stirling, Deseronto.
Lennox and Addington . . .	Napanee, Bath, Newburgh.
Frontenac . .	Kingston, Portsmouth, Sydenham.
Nipissing District.	Mattawa, North Bay.
Parry Sound " .	Parry Sound.
Muskoka " .	Bracebridge, Gravenhurst.

still vast tracts of unsurveyed lands, covered with the primeval forests, where even the lumberman does not penetrate. Railways are being extended, new roads opened up, and settlements made every year, so that before long the favored portions of these districts will probably be as thickly peopled as are some of the counties.

The **surface** of Ontario is in general level, or gently undulating, with only sufficient rise to form a watershed for the rivers flowing north or south. From the Niagara River a ridge extends westward, at a short distance from Lake Ontario, as far as Hamilton, then turns northward, terminating in the *Blue Mountains*, near Collingwood, on the Georgian Bay, where it attains the highest elevation in Ontario. A similar ridge separates the streams flowing into Lake Ontario from those flowing into Lakes Simcoe and Huron. The north shores of Lakes Huron and Su-



Profile of the Great Lakes and the St. Lawrence to the Falls of Montmorency, Elevation above Sea-level, Depth of Lakes, etc. The vertical scale is very many times greater than the horizontal, consequently the angle of descent from lake to lake, and of the bottom of the lakes, is greatly exaggerated.

Eastern Counties, between the Ottawa and St. Lawrence Rivers.

Counties.	*Chief Towns.*
Leeds . . .	Brockville, Gananoque.
Lanark . . .	Perth, Smith's Falls, Carleton Place, Almonte.
Renfrew . .	Pembroke, Renfrew, Arnprior.
Grenville . .	Prescott, Merrickville, Kemptville.
Dundas . . .	Morrisburg, Iroquois.
Carleton . .	Ottawa, New Edinburgh.
Stormont . .	Cornwall.
Russell . .	Russell.
Glengarry . .	Alexandria, Lancaster.
Prescott . .	L'Original, Hawkesbury.

In the north and north-western parts of the province are perior are rugged and precipitous. The *La Cloche Mountains* are on the northern shore of Lake Huron.

The principal feature of Ontario is its great **chain of inland lakes,** forming, with the River St. Lawrence, a continuous water communication of over 2,000 miles.

	Length.	*Breadth.*	*Area.*	*Height above the sea.*
Superior . .	390 miles.	160 miles.	32,000 sq. miles.	603 feet.
Huron, with Georgian Bay . .	280 "	160 "	24,000 "	577 "
St. Clair . .	26 "	25 "	360 "	570 "
Erie . . .	250 "	60 "	10,000 "	567 "
Ontario . .	190 "	58 "	7,000 "	240 "
Michigan . .	345 "	58 "	22,400 "	577 "

These lakes now form the great highway of commerce for Canada and the Western States of America, and the St. Lawrence is the natural outlet.

The extent of country drained by the lakes, although great, is small compared with their area, as no rivers of importance flow into them. They occupy the hollow between the watersheds from which the rivers flowing into Hudson Bay and those of the United States to the south flow; in many cases these rise within a few miles of the lakes, as in the case of the Illinois River, near Lake Michigan.

Lake Superior is the largest body of fresh water on the globe, and is remarkable for the extensive iron, copper, and silver mines on its shores; and for the Pictured Rocks, a high range of cliffs of various colors, along its southern coast. The *River St. Louis* flows into it at the extreme west end, and the *Nipigon River*, the outlet of *Lake Nipigon*, flows into it from the north.

Pictured Rocks, Lake Superior.

At Fort William and Port Arthur connection is made with the Canadian Pacific Railway by steamboat on the lakes. The *St. Mary River* connects Lake Superior with Lake Huron, and near its outlet from the former lake are the rapids of the Sault Ste. Marie, to avoid which two canals have been made, one by the United States, and another by the Dominion of Canada.* The freight tonnage carried through the United States canal considerably exceeds that of the Suez Canal, although the latter is open throughout the year and is used by ships of many nations.

Lake Huron is noted for its extensive fisheries, white fish and salmon trout being chiefly taken; for its valuable copper mines; and for its numerous islands, of which the *Manitoulin Islands* are the principal. On the east is *Georgian Bay*, separated from Lake Huron by a peninsula, and terminating in *Matchadash Bay*, *Nottawasaga Bay*, and *Owen Sound*. The *Nottawasaga River* flows into the bay of the same name. *Lake Simcoe* is drained into *Lake Couchiching*, and thence into Georgian Bay by the *River Severn*, and *Lake Nipissing* by *French River*. The rivers *Saugeen* and *Maitland* flow into Lake Huron from the western peninsula. On the west coast of the lake is a deep inlet called *Saginaw Bay*. The principal towns on Lake Huron in Canada are *Goderich*, *Kincardine*, and *Southampton*, on the shore of the western peninsula; *Owen Sound*, *Meaford*, *Collingwood*, *Penetanguishene*, *Midland*, and *Parry Sound* on Georgian Bay. The waters of Lake Huron flow into Lake St. Clair by the St. Clair River, at the head of which is *Sarnia*.

Lake St. Clair is a small shallow lake with a rapid current, and is dangerous for navigation. The *River Thames*, rising in Perth County, flows past *St. Mary's*, *London*, and *Chatham*, into it on the south-east. The *Detroit River* connects Lake St. Clair with Lake Erie. It is about 30 miles long, and from one to two broad. *Windsor*, *Sandwich*, and *Amherstburg* are situated on it, and opposite Windsor is *Detroit*, on the United States side.

Lake Erie is remarkable for its sudden storms. It is the most shallow of the great lakes, its mean depth being less than 100 feet. It contains the Islands *Long Point* and *Pelee*. The *Grand River* rises in the county of Wellington, and flows past *Elora*, *Galt*, *Paris*, *Brantford*, *Caledonia*, and *Dunnville*, into Lake Erie towards its north-eastern extremity, after a course of upwards of 100 miles. The principal towns on Lake Erie are *Port Stanley*, *Port Burwell*, *Port Dover*, and *Port Colborne*, on the Canadian side; and *Buffalo*, *Dunkirk*, *Erie*, *Cleveland*, *Sandusky*, and *Toledo*, on the United States side. Lake Erie is connected with Lake Ontario by the *Niagara River*, on which are the celebrated Falls of Niagara, distant from Lake Ontario about 14 miles.

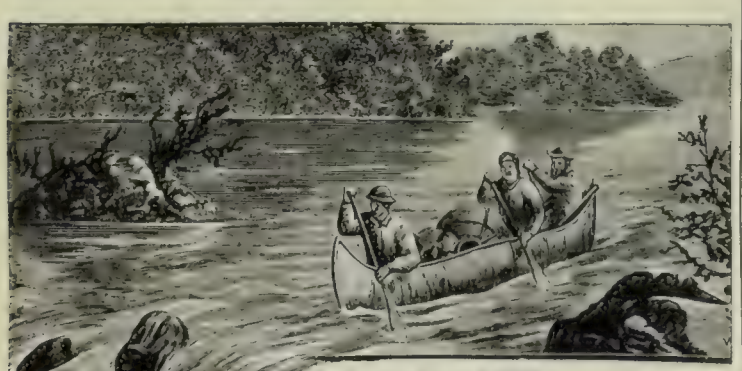
* The Canadian canal will be completed in 1883. It will float vessels drawing sixteen feet of water.

The river, at the outlet of Lake Erie, is about three-quarters of a mile wide, and flows with a rapid current. About a mile and a half above the Falls are *Grand* and *Navy Islands*. Below these islands a series of fierce rapids begins, until, at the Falls, the river descends about 160 feet. The Falls are divided by a little island called Goat Island, the larger volume of water being on the Canadian side, and forming the "Horse-shoe Fall," so called from its semicircular form. The mass of water which falls is enormous, and produces a deafening roar. The force of the current below the Falls is so great that its depth cannot be sounded. After flowing in a rapid and turbulent stream for about two miles, between lofty precipices, it forms the Whirlpool, and then flows with a smooth but rapid current towards Lake Ontario.

Lake Ontario is the smallest of the five great lakes, but is the most important for Canadian trade. *Burlington Bay*, on which Hamilton is built, forms the western extremity. On the north shore is the remarkable peninsula of *Prince Edward*, nearly separated from the mainland by the *Bay of Quinté*, which is noted for its beautiful scenery. The *Trent*, *Moira*, and *Napanee Rivers* flow into the Bay of Quinté. The principal Canadian towns on Lake Ontario are *Hamilton*, *Toronto*, *Port Hope*, *Cobourg*, and *Kingston;* and *Belleville*, on the Bay of Quinté. *Rochester*, *Oswego*, and *Sackett's Harbor* are on the United States side.

Lake Michigan is entirely within the United States, but is connected with Lake Huron by the Strait of Mackinaw.

Besides these, there are: *Lakes Simcoe*, *Muskoka*, *Rosseau*, and *Joseph*, connected with Lake Huron; *Lake Nipigon*, emptying into Lake Superior; *Lake of the Woods*, in the extreme west, and a chain of smaller lakes extending through Victoria, Peterborough, and adjoining counties, and connected with the Bay of Quinté by the River Trent; *Lakes Nipissing*, *Abittibi*, *Temiscaming*, and others, are farther north. There are probably not fewer than 20,000 lakes of various sizes in the province.



Running the Rapids.

The **St. Lawrence** forms the outlet of the great chain of inland lakes, and flows from Lake Ontario into the Gulf of St. Lawrence, a distance of about 750 miles. At the point where it issues from Lake Ontario it forms the Lake of "The Thousand Islands," celebrated for the variety, beauty, and picturesqueness of its scenery. Below this, and extending as far as Montreal, are several long and tumultuous rapids, called the Galops, Long Sault, Coteau, Cedars, Cascades, and Lachine.

Steamers and rafts pass down these in safety; vessels can return only by means of canals on the banks of the river. The St. Lawrence is navigable for large sea-going ships up to Montreal. At Quebec the river is two miles wide, and below that it gradually widens until it enters the gulf. The St. Lawrence has three large lake expansions on its course—*Lakes St. Francis*, *St. Louis*, and *St. Peter*—and receives, besides the *Ottawa*, all the rivers in the Province of Quebec, as mentioned hereafter.

The **Ottawa** takes its rise in the western part of Quebec, flows west to Lake Temiscaming, thence south-easterly, and

Oil Well and Derrick.

joins the St. Lawrence at the Island of Montreal, after a course of 750 miles. It has numerous lake expansions, the principal being the *Allumettes*, *Chats*, *Chaudière*, and *Two Mountains*. The Chaudière Falls at Ottawa are very grand. The principal tributaries of the Ottawa are the *Petawawa*, *Bonnechère*, *Madawaska*, and *Rideau*, on the south, and the *Gatineau*, *Du Lièvre*, *Du Nord*, and *L'Assomption* on the north bank. During the chief part of its course it forms the boundary between Ontario and Quebec until near its mouth, and enters the St. Lawrence by three branches, enclosing the *Islands of Montreal*, *Bizarre*, and *Jesus*.

Ontario was but thinly settled up to 1794, when York, now called Toronto, was founded. The whole population of the province was then only about 65,000. Since that period, and especially within the last twenty years, it has

improved very rapidly, and is now the most important province of the Dominion.

Agriculture and **lumbering** form the chief employments of the inhabitants. Large quantities of grain, principally wheat and barley, also of lumber, square timber, cattle, and dairy produce, are annually exported. The wheat, flour, and barley of Ontario are considered among the best on the continent. Large quantities of fruit are produced, especially in the counties bordering on Lake Erie and the western half of Lake Ontario.

The **mines** of Ontario are very valuable, particularly the copper, nickel, gold, and silver mines north of Lakes Huron and Superior. Gold is also found in the vicinity of Lake of the Woods, Sudbury, Lake Wahnapitae, and in the counties of Peterborough and Hastings. Valuable petroleum springs are numerous in the western peninsula, at Oil Springs, Petrolia, Enniskillen, and other places, and are giving employment to a large number of men. The fisheries on Lake Huron are extensive and valuable.

Salt-wells are worked at various places in the counties of Huron, Bruce, Perth, and Lambton, and yield large quantities of the purest salt.

The **Legislature of Ontario** consists of a Lieutenant-Governor with an Executive Council of 8 members, and a Legislative Assembly of 92 members. The Lieutenant-Governor is appointed by (and holds office during the pleasure of) the Governor-General of Canada; but cannot be removed within five years of his appointment without cause shown.

The **Legislative Assembly** is elected by the people, and continues, unless dissolved by the Lieutenant-Governor, for four years. There must be at least one session of the Assembly every year.

The annual revenue is about 4,000,000 dollars.

There are twelve cities in Ontario—Toronto, Hamilton, Ottawa, Kingston, London, St. Catharines, Guelph, Brantford, Belleville, St. Thomas, Stratford, and Windsor.

City of Toronto.

Toronto (190,000), situated on Lake Ontario, was founded in 1794 by General Simcoe, and then called York. It is the largest city and the capital of Ontario; and was one of the capitals, alternately with Quebec, of the Province of Canada before Ottawa was chosen. It is distinguished for the number and elegance of its public buildings, among which are the Parliament Buildings, Osgoode Hall (occupied by the law courts, law library, etc.), the Custom House, the Post Office, and the following educational institutions: the University of Toronto, Knox College, McMaster Hall, Victoria College, Wycliffe College, St. Michael's College, the School of Practi-

cal Science, and the Normal School. The new City Hall and Court House will be a large and beautiful structure. It will cost about $2,000,000. Toronto is entered by many railway lines connecting with the rest of the continent; it possesses a fine harbor, and carries on a large trade. The growth of the city has been very rapid during the last ten years.

Ottawa (44,154), the capital of the Dominion of Canada, is beautifully situated on the Ottawa River, just below the Chaudière Falls. It contains the Parliament Buildings, erected at a cost of upwards of $4,000,000. It is distant from Montreal about 120 miles. The Rideau Canal, formed largely of the river of the same name, connects it with Kingston. Ottawa, with *Hull* opposite, is the principal centre of the lumber trade, vast quantities of timber being floated down the Ottawa and its affluents.

Hamilton (49,000), situated at the head of Burlington Bay, is the second city in Ontario in population and commercial importance. It is well built, the principal buildings being of stone, and it has extensive waterworks. Being at the head of navigation on Lake Ontario, it has a large trade with the western peninsula.

Kingston (19,234), situated at the eastern extremity of Lake Ontario, just above the Lake of "The Thousand Islands," is one of the oldest cities in Ontario. It possesses several forts, being the only fortified town in the upper province. Its buildings are mostly of stone, which is found in the neighborhood in great abundance. It is the seat of Queen's College and University, the Royal Military College, and the Provincial Penitentiary, and carries on a large shipping trade.

London (32,000), on the Thames, is the principal city west of Hamilton. It is situated in the midst of a populous and rich agricultural country. It has numerous fine buildings, and is the seat of the Western University and a medical college.

St. Catharines (9,170) is beautifully situated on the Welland Canal, in the best fruit-growing region of Canada, possesses mineral springs, and is a favorite resort for invalids and an attractive summer residence.

Guelph (10,539) is the centre of a rich agricultural country, and carries on important manufactures. Near it are the Ontario Agricultural College and Experimental Farm.

Brantford (12,793) is beautifully situated on the Grand River. It has large trade and manufactures connected with the agricultural industry.

Belleville (10,000), on the Bay of Quinté, at the mouth of the Moira, ships a large quantity of grain, cheese, lumber, and iron ore.

St. Thomas (10,370) is an important railway centre.

Stratford (10,000) is a busy railway centre, and is the principal cheese market of the west. It is situated in one of the finest agricultural districts in America.

Windsor (10,322), on the St. Clair River, is a terminus of the Grand Trunk and Canadian Pacific Railways. It is rapidly becoming a place of considerable importance.

Peterborough (10,000) is one of the most important towns in the eastern portion of the province. It has extensive agricultural works and machine shops. Here, also, are situated very large workshops for the manufacture of electric appliances of every description. With its suburb *Ashburnham*, its population is over 12,000.

Dundas (3,546), near Hamilton, and *Galt* (7,535), on the Grand River, are important manufacturing towns.

Chatham (9,052), on the Thames, has a considerable shipping trade; *Lindsay* (6,081), in the interior, carries on a large lumber trade.

Cobourg (4,829) and *Port Hope* (5,042) are important towns on Lake Ontario, and export lumber and produce.

Woodstock (8,612) and *Ingersoll* (4,191), in the western peninsula, are busy manufacturing towns in the centres of rich agricultural districts; *Perth* (3,136), on a branch of the Rideau, and *Brockville* (8,793), on the St. Lawrence, carry on a large local trade in grain and lumber.

Niagara (1,441), the first capital of the old province of Upper Canada, is at the mouth of the Niagara River, in an extremely fertile country, but is now chiefly attractive as a summer resort.

Owen Sound (7,497),—the southern port of the Canadian Pacific Railway's lake steamers—and *Collingwood* (5,000) are on Georgian Bay; *Goderich* (3,839) on Lake Huron; *Port Stanley*, *Port Dover*, and *Port Colborne*, are on Lake Erie.

Sarnia (6,693), on the St. Clair River, is the western terminus of the Grand Trunk Railway. Here the Grand Trunk tracks reach the Michigan shore through an immense iron tunnel beneath the bed of the River St. Clair.

Fort William, near the mouth of the Kaministiquia, on Thunder Bay, is the chief Lake Superior port of the Canadian Pacific Railway's steamers. Here are some of the largest grain elevators in the world.

Nearly all the other places mentioned in the list of chief towns accompanying the names of the counties are busy centres of manufacturing industries, having populations of from 1,500 to 8,000. They are nearly all substantially built, and not a few of them possess fine public buildings. In every case the school-houses are prominent features.

PROVINCE OF
QUEBEC
ENGLISH MILES
0 10 20 30 40 50
Railways Open
75
74
73
72
71
70
19
48
47
46
45
Lake St. John
Chicoutimi
Saguenay River
Montmorency
Quebec
Levis
Lotbiniere
Beauce
Dorchester
Megantic
Nicolet
Yamaska
Drummond
Wolfe
Richmond
Compton
Sherbrooke
Stanstead
Brome
Shefford
Bagot
Vaudreuil
Soulanges
Huntingdon
Chateauguay
Laprairie
Napierville
Iberville
Beauharnois
Argenteuil
Terrebonne
Two Mountains
Joliette
Berthier
Maskinonge
Champlain
St. Maurice
Portneuf
Charlevoix
Montcalm
Ottawa River
Lake St. Francis
Lake Champlain
Ontario
New York
Vermont
Canada Publishing Co., Toronto
Longitude West

69
68
67
66
65
Hauts Monts
Pt.St.Nicolas
Cap Chat
Carleton
Mont Louis
Grande Vallée
Clerideume
Fox River
49
MANIGOUAGAN
PENINSULA
Pt.Outardes
Pt.Betsiamites
SAGUENAY
St.Felicite
Matane
Mt.Bayfield
3,97
Mt.Logan
3,700
SHICKSHOCK OR NOTRE DAME MTS.
Conic Mt.
1,910
GASPÉ
GASPÉ PENINSULA
C.Rosier
Cape Gaspé
Barachois de Malbaie
Mal Bay
C.Canon
BONAVENTURE
C.D'Espoir
C.Rouge
Grand R.
Matapedia
Mt.Comis
2,036
Metis Lakes
Causapscal
Nouvelle
Carleton
New Richmond
Port Daniel
Pt.
Macquereau
Newport
Escoumins
St.Simon
S.Fabien
S.Mathieu
Trois Pistoles
Pic 1,200
Dalhousie
New Carlisle
48
CHALEUR BAY
Cacouna
Rivière du Loup
(Fraserville)
TEMISCOUATA
Pine Charge
Matapedia
Bathurst
Nepisiguit R.
Edmundston
Green R.
St.Francis
L.de P.Iat
Madawaska
Mirramichi Bay
Chatham
47
Wallastook
or St.John R.
Tobique R.
Richibucto
Mirramichi R.
Woodstock
BRUNSWICK
Salmon R.
Moncton
46
St.John R.
FREDERICTON
Grand L.
Chesuncook
Lake
Moosehead
Hampton
Chignecto Bay
St.John R.
St.Croix R.
Magaguadavic R.
St.John
St.Martin's
Minas Chan.
St.John Harb.
BAY OF FUNDY
NOVA
45
St.Andrews
Passamaquoddy Bay
SCOTIA
From Greenwich
69
68
67
66
65

VIEWS OF MONTREAL AND QUEBEC.

QUEBEC.

Area, 228,000 square miles; population, 1,488,535; persons to square mile, 7.

The **Province of Quebec**, formerly Lower Canada, or Canada East, comprises that portion of the Dominion which extends along the St. Lawrence from the Ottawa River to the Gulf of St. Lawrence, and is bounded on the east and south by New Brunswick and the United States.

It is divided into 20 judicial districts, and these are again subdivided into 61 counties. To assist the memory, these may be classed thus: Counties on the Ottawa; those on the north bank of the St. Lawrence; those on the south bank; and those lying inland between the latter and the United States, usually called the Eastern Townships.

Counties on the Ottawa and between it and the St. Lawrence.

Counties.	*Chief Places.*
PONTIAC	Bryson, Portage du Fort.
OTTAWA	Aylmer, Hull.
ARGENTEUIL	Lachute, St. Andrews.
TWO MOUNTAINS	Ste. Scholastique, St. Eustache.
VAUDREUIL	Vaudreuil.
SOULANGES	Coteau Landing.
JACQUES CARTIER	Point Claire, Lachine. (Island of Montreal.)
HOCHELAGA	Montreal, St. Henri. (Island of Montreal.)
LAVAL	Ste. Rose, St. Vincent de Paul. (Islands Jesus and Bizarre.)

Counties on the North Bank of the St. Lawrence.

TERREBONNE	St. Jerome, Ste. Therese, Terrebonne.
L'ASSOMPTION	L'Assomption.
MONTCALM	Ste. Julienne, Rawdon.
JOLIETTE	Joliette.
BERTHIER	Berthier.
MASKINONGE	Riviere du Loup.
ST. MAURICE	Three Rivers, Yamachiche.
CHAMPLAIN	Batiscan, Ste. Anne.
PORTNEUF	Cap Santé, Portneuf.
QUEBEC	Quebec, Charlesbourg.
MONTMORENCY	Chateau Richer.
CHARLEVOIX	St. Paul's Bay, Ste. Irenée.
CHICOUTIMI	Chicoutimi
SAGUENAY	Tadousac, Murray Bay.

Counties on the South Bank of the St. Lawrence.

Counties.	*Chief Places.*
HUNTINGDON	Huntingdon.
BEAUHARNOIS	Beauharnois.
CHATEAUGUAY	Ste. Martine, Chateauguay.
LAPRAIRIE	Laprairie, Caughnawaga.
NAPIERVILLE	Napierville, St. Remi.
ST. JOHN'S	St. John's.
IBERVILLE	Ste. Athanase.
ROUVILLE	Ste. Marie.
CHAMBLY	Chambly, Longueuil.
VERCHÈRES	Verchères.
ST. HYACINTHE	St. Hyacinthe.
BAGOT	St. Hugues.
RICHELIEU	Sorel, St. Ours.
YAMASKA	St. François, Yamaska, La Baie.
NICOLET	Becancour, Nicolet.
LOTBINIERE	Lotbiniere, St. Croix.

Counties.	*Chief Places.*	*Counties.*	*Chief Places.*
LEVIS	Point Levis.	KAMOURASKA	Kamouraska.
DORCHESTER	Ste. Henedine, St. Anselme.	TEMISCOUATA	Ile Verte, Riviere du Loup, Cacouna.
BELLECHASSE	St. Michel.	RIMOUSKI	Rimouski.
MONTMAGNY	St. Thomas.	GASPE	Pereé, Gaspé.
L'ISLET	St. Jean, L'Islet.	BONAVENTURE	New Carlisle.

Eastern Townships.

MISSISQUOI	Frelighsburg, Bedford, Farnham.	WOLFE	Dudswell.
		RICHMOND	Richmond.
BROME	Knowlton.	COMPTON	Cookshire, Compton.
SHEFFORD	Waterloo, Granby.		
DRUMMOND	Drummondville.	SHERBROOKE	Sherbrooke, Lennoxville.
ARTHABASKA	St. Christophe.		
MEGANTIC	Leeds, Inverness.	STANSTEAD	Stanstead, Coaticook.
BEAUCE	St. François, La Beauce.		

The **Island of Bonaventure,** to the east of Gaspé, is an important fishing station. The *Magdalen Islands*, situated in the Gulf of St. Lawrence, 50 miles north of Prince Edward Island, are high and rugged, but important for the fisheries which are carried on by the inhabitants, who are of French descent, and number about 3,500. *Anticosti* is a barren and almost uninhabited island. The *Island of Montreal*, on which the city is built, and the islands *Bizarre* and *Jesus*, adjoining it, the *Island of Orleans*, just below Quebec, and *Isle aux Coudres*, *Hare* and *Bic Islands*, and a few others lower down, are in the St. Lawrence; and the islands *Calumet* and *Allumette* in the Ottawa.

The **surface** of northern Quebec is much more mountainous than that of Ontario; along the southern bank of the St. Lawrence, however, it is comparatively level. The rivers are larger than in the upper province, and the lakes numerous but small.

The **Notre Dame Mountains** (continued in New Hampshire, where they are known as the White Mountains) extend under various names, as the Shickshock and Ste. Anne Mountains, to the extremity of Gaspé, where they form an elevated table-land 1,500 feet high. Their principal summits are Mount Logan and Mount Bayfield, nearly 4,000 feet high. In the more southern part of the range, in the eastern townships, they are capable of cultivation to their summits, and are generally low and rolling. The *Laurentide Hills* are a rugged range skirting the north bank of the St. Lawrence in the lower part of its course, and extending from Labrador to near Quebec, where they leave the river, but still keep nearly parallel with it, until about 30 miles west of Montreal, when, skirting the Ottawa for about 100 miles, they cross it and curve round towards Kingston. From there the elevation again extends north-westward to the shores of Lakes Huron and Superior. The average height of these hills is about 1,300 feet, but some of their summits north of the city of Quebec rise to more than 4,000 feet. They are remarkable for the numerous small lakes which they enclose, many of which are yet unexplored, although upwards of 1,000 are already laid down on maps. The hills are generally covered to their summits with dense forests of pine.

The **principal rivers** on the north side of the St. Lawrence are:

The **St. Maurice,** rising in a number of small lakes near the boundary of the North-East Territory, falls into the St. Lawrence at Three Rivers. It is over 400 miles in length. Twenty-four miles above Three Rivers is the Fall of Shawenegan, 150 feet high.

The **Saguenay**, rising in Lake St. John, issues in two streams, which unite after a few miles. It flows into the St. Lawrence at Tadousac, after a course of 100 miles, or including under the same name the chief feeder of Lake St. John, of over 300 miles. It is of great depth, and is famous for the grandeur of its scenery, stupendous cliffs forming the banks in some places. It is $2\frac{1}{2}$ miles wide at its mouth. About 60 miles from its mouth is Ha-Ha Bay, celebrated for its scenery.

Besides these, also on the north bank, are the *Batiscan*, entering the St. Lawrence at Batiscan, the *Ste. Anne*, the *Jacques Cartier*, and the *Montmorency*, the latter, which enters the St. Lawrence a little below Quebec, being celebrated for the beautiful falls, 250 feet high, at its mouth, and for the natural steps on its rocky banks.

On the south side are the *Richelieu*, draining the beautiful Lake Champlain, and entering Lake St. Peter at Sorel; the *St. Francis*, the *Chaudière*, the *Chateauguay*, the *Yamaska*, and the *Bécancour*.

The **principal lakes** are *St. John*, the source of the Saguenay, *Temiscouata*, *Megantic*, and *Memphremagog*. The northern part of *Lake Champlain* is also in the province of Quebec.

Owing to the severity of the climate, the north bank of the St. Lawrence below the Saguenay is almost incapable of cultivation, but the south bank is better settled and more cultivated. Copper is found extensively in the Eastern Townships, and gold has been discovered on the Chaudière and in other places.

Quebec derives its chief importance from its commercial position, its lumber trade, and its fisheries. As the rapids on the St. Lawrence obstruct navigation for large sea-going vessels beyond Montreal, this city has become the commercial emporium for the west. The fisheries of the St. Lawrence are very valuable, consisting chiefly of cod, mackerel, herring, salmon, and seals. Lumbering is carried on extensively along the shores of all the rivers; the timber being floated down the Ottawa and St. Lawrence in rafts to Quebec, whence it is shipped.

The **Legislature of Quebec** consists of a Lieutenant-Governor and two houses, the Legislative Council and the Legislative Assembly. The Lieutenant-Governor is appointed by the Governor-General in Council, and is assisted by an Executive Council of 8 members. The Legislative Council is composed of 24 members, appointed for life by the Lieutenant-Governor in Council. The Legislative Assembly is composed of 65 members, and is elected by the people for the term of four years, if not sooner dissolved by the Lieutenant-Governor.

The annual revenue is about 3,500,000 dollars.

The province of Quebec contains the following cities: *Quebec*, *Montreal*, *St. Henri*, *Hull*, *St. Hyacinthe*, *Sherbrooke*, and *Three Rivers*.

Quebec (63,090), the oldest city in Canada, and the capital of the province of Quebec, stands on a high promontory formed by the junction of the St. Charles with the St. Lawrence. It is the best fortified city in North America, and is famed for its picturesque appearance, its numerous points of historic interest, and for the beautiful scenery in its neighborhood. The gates of its ancient walls remain. It is the seat of Laval University. Near the city are the Plains of Abraham, memorable as the scene of a celebrated battle between the British and French, and for the death of both commanders, Wolfe and Montcalm. The St. Lawrence is here two miles wide, and navigable for ships of the greatest draught. Quebec derives its importance from its shipping, ship-building, and timber trade.

Montreal (216,650), the largest and most important city in Canada, is on an island of the same name near the junction of the Ottawa with the St. Lawrence. It is beautifully situated at the foot of a hill called "The Mountain," from which the city took its name, Mont Real, or Royal Mountain. Its principal streets are handsome, the buildings being mostly of a dark grey limestone; and it possesses a magnificent quay, extending more than three miles along the river. It contains McGill University, several affiliated colleges, a branch of Laval University, many beautiful churches, the Royal Victoria Hospital, and other public buildings.

Near Montreal is the famous **Victoria Bridge**, the largest iron tubular bridge in the world, erected on twenty-four piers, and nearly two miles in length. It is 60 feet high in the centre, and steamboats and other vessels pass freely under it. It is on the line of the Grand Trunk Railway, while the C. P. R. crosses the St. Lawrence on a very long truss-work bridge at Lachine, a few miles up the river.

St. Henri (13,415) is a prosperous suburb of Montreal.

St. Cunegonde (9,293) is a rapidly-growing suburb of Montreal.

Hull (11,265) is situated on the Ottawa, opposite the city of Ottawa, with which it is connected by a suspension bridge. Its principal trade is in lumber.

St. Hyacinthe (7,016), on the Yamaska, has a Roman Catholic cathedral and college.

Sherbrooke (10,110), at the confluence of the Magog and St. Francis Rivers, is the seat of extensive manufactures.

Three Rivers (8,334), so-called from the St. Maurice, which here joins the St. Lawrence by three mouths, is one of the oldest cities in Canada, and carries on extensive iron manufactures and a large lumber trade.

Levis (7,301) is on the St. Lawrence, opposite Quebec. *Sorel* (6,669), *Coteau du Lac*, and *Stanstead* are important towns with local trade; *St. John's*, or *St. Jean* (4,772) and *Valleyfield* (5,516) are rising towns; *Rimouski* (1,500) carries on a shipping and lumber trade; *Caughnawaga* and *St. Regis* are Indian villages. *Joliette* (3,347), *Lachine* (3,761), *Fraserville* (4,175), *Lauzon* (3,351), and *Coaticook* (3,086) are also growing towns; as are *Farnham*, *St. Jerome*, *Longueuil*, *Nicolet*, *Notre Dame de Grace*, *Chicoutimi*, *Magog*, *Richmond*, *Lennoxville*, and *Coté St. Antoine*.

Lachine Rapids, on the St. Lawrence.

Scenes in New Brunswick.

NEW BRUNSWICK.

Area, 28,200 square miles; population, 321,270; persons to square mile, 12; greatest extent from north to south, 210 miles; directly from east to west, 190 miles.

The **Province of New Brunswick** is bounded on the north by Quebec and the Bay of Chaleur; on the west by Quebec and the State of Maine; on the south by the Bay of Fundy, Chignecto Bay, and Nova Scotia; on the east by Northumberland Strait and the Gulf of St. Lawrence. It is connected with Nova Scotia by the Isthmus of Chignecto, 14 miles wide.

It is in latitude 45° to 48° N., and longitude 63° 50′ to 69° W.

There are fifteen counties in the province, which, with their chief towns and villages, are as follows:

Counties in the South and West.

Counties.	*Chief Places.*
St. John	St. John, Fairville, St. Martins.
Charlotte	*St. Andrews*, St. Stephen, Milltown, St. George.
King's	*Hampton*, Sussex, Rothsay, Norton, Havelock.
Queen's	*Gagetown.*
Sunbury	*Oromocto.*
York	Fredericton, St. Mary's, Gibson, *Marysville*, Stanley.
Carleton	*Woodstock*, Hartland, Centreville.
Victoria	*Andover*, Grand Falls.
Madawaska	*Edmundston.*

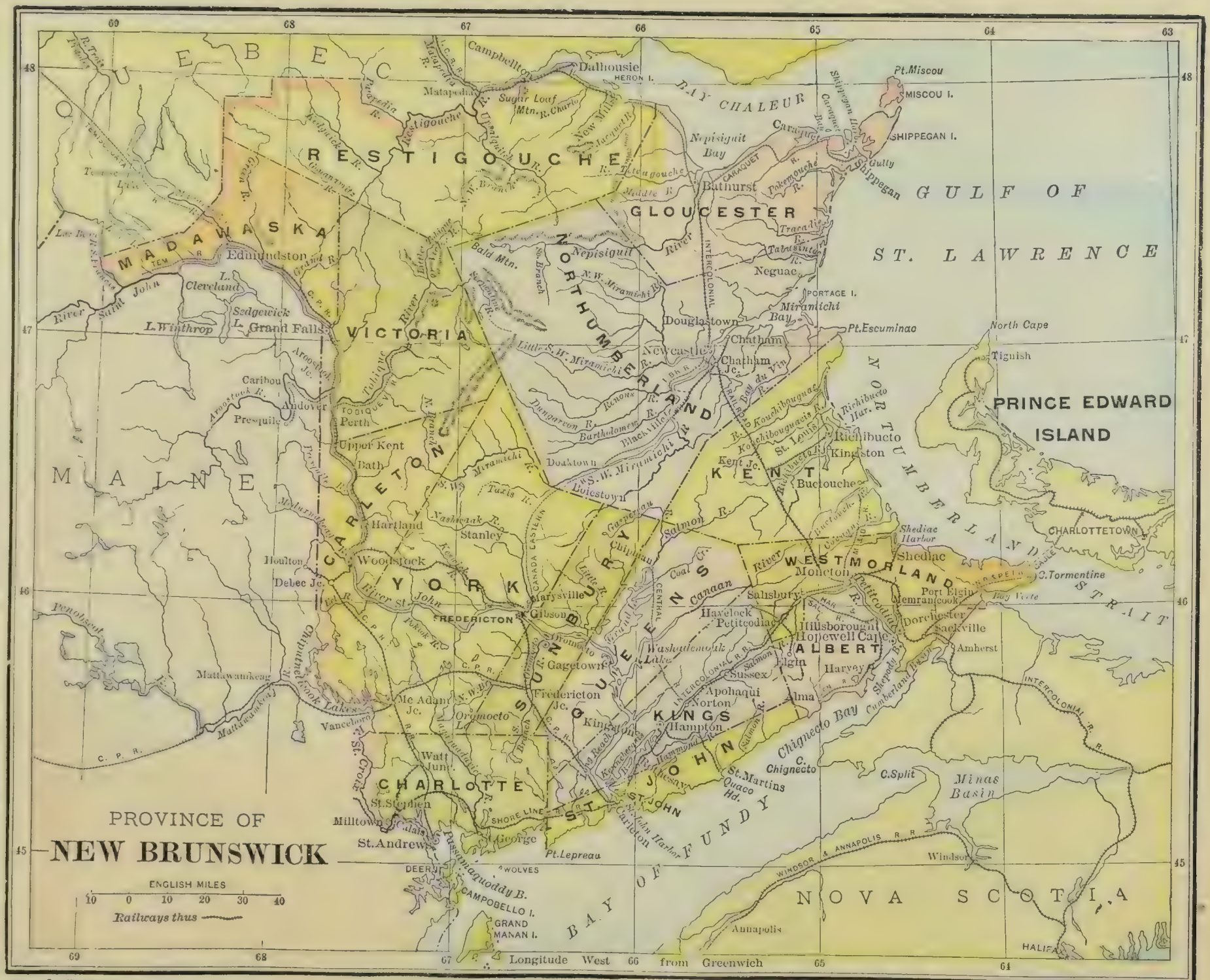
Counties in the North and East.

Counties.	*Chief Places.*
Restigouche	*Dalhousie*, Campbellton.
Gloucester	*Bathurst*, Bathurst Village, Caraquet.
Northumberland	*Newcastle*, Chatham, Douglastown.
Kent	*Richibucto*, Kingston, Buctouche.
Westmoreland	*Dorchester*, Moncton, Salisbury, Shediac, Sackville.
Albert	*Hopewell*, Hillsboro, Elgin.

The **surface** of New Brunswick is generally undulating, and a great part is covered with forests. There are some high hills in the northern counties, also north of St. John, and along the Bay of Fundy; but they nowhere rise higher than 2,000 feet above the sea-level. The principal water-shed extends from north-west to south-east, not far from the boundary between the two groups of counties.

The **rivers** are numerous, and several are navigable for vessels of considerable size, while some form lake expansions.

The **St. John River** has its sources in the Appalachian range, in the State of Maine (see map of Quebec), and after a circuitous course of about 450 miles enters the Bay of Fundy at St. John. It receives on its left bank the *St.*


PROVINCE OF
NEW BRUNSWICK
ENGLISH MILES
10 0 10 20 30 40
Railways thus
Longitude West from Greenwich
QUEBEC
MAINE
NOVA SCOTIA
BAY CHALEUR
GULF OF ST. LAWRENCE
BAY OF FUNDY
RESTIGOUCHE
MADAWASKA
VICTORIA
NORTHUMBERLAND
GLOUCESTER
KENT
CARLETON
YORK
SUNBURY
QUEENS
WESTMORLAND
ALBERT
KINGS
CHARLOTTE
ST. JOHN
PRINCE EDWARD ISLAND
Dalhousie
Campbellton
Matapedia
Sugar Loaf Mtn.
Nepisiguit Bay
Bathurst
Caraquet
Pt. Miscou
MISCOU I.
SHIPPEGAN I.
Shippegan
Gulf
Tracadie
Neguac
Miramichi Bay
PORTAGE I.
Douglastown
Newcastle
Chatham
Chatham Jc.
Pt. Escuminac
North Cape
Tignish
Edmundston
L. Cleveland
L. Winthrop
Sedgewick
L. Grand Falls
Grand R.
River Saint John
Caribou
Andover
Presquile
Perth
Upper Kent
Bath
Woodstock
Hartland
Stanley
Houlton
Debec Jc.
Fredericton
Gibson
Marysville
Gagetown
Oromocto
Oromocto L.
Me Adam Jc.
Vanceboro
Mattawamkeag
Penobscot R.
Chiputneticook Lakes
St. Croix R.
Watt Junc.
St. Stephen
Milltown
St. Andrews
St. George
Pt. Lepreau
Deer I.
Passamaquoddy B.
Campobello I.
Grand Manan I.
Wolves
Doaktown
Boiestown
Blackville
Dungarvon R.
Bartholomew R.
Renous R.
Bay du Vin R.
Richibucto
Kingston
Buctouche
St. Louis
Kouchibouguac R.
Richibucto Har.
Shediac
Shediac Harbor
Moncton
Salisbury
Petitcodiac
Havelock
Hillsborough
Hopewell Cape
Dorchester
Sackville
Amherst
Port Elgin
Memramcook
Cape Tormentine
CHARLOTTETOWN
Northumberland Strait
Sussex
Elgin
Harvey
Apohaqui
Norton
Hampton
Alma
Chignecto Bay
C. Chignecto
C. Split
Minas Basin
St. Martins
Quaco Hd.
Annapolis
Windsor
Windsor & Annapolis R. R.
Intercolonial R. R.
Canada Eastern R. R.
Shore Line R. R.
Tobique R.
Nashwaak R.
Miramichi R.
Salmon R.
Canaan R.
Petitcodiac R.
Memramcook R.
Kouchibouguac R.
Richibucto R.
Buctouche R.
Gaspereau R.
Chipman
Coal Br.
Grand Lake
Washademoak Lake
Jemseg
Keswick R.
Tobique R.
Nepisiguit R.
Bald Mtn.
Little S. W. Miramichi R.
N. W. Miramichi R.
Tracadie R.
Pokemouche R.
Caraquet R.
Gulch
Shippegan Gully
Escuminac R.
Tabusintac R.
Middle R.
Upsalquitch R.
Restigouche R.
Matapedia R.
Metapedia R.
Campbellton
Dalhousie
Heron I.
Tetagouche R.
Jacquet R.
New Mills
Charlo
Bathurst
Nepisiguit
Neguac
Douglastown
Chatham
Newcastle
Miramichi
Tignish
Shediac
Moncton
Salisbury
Hillsborough
Hopewell Cape
Dorchester
Sackville
Amherst
Port Elgin
Memramcook
Cape Tormentine
CHARLOTTETOWN
Fredericton
Gibson
Marysville
Gagetown
Oromocto
Me Adam Jc.
Vanceboro
Mattawamkeag
Houlton
Debec Jc.
Woodstock
Hartland
Stanley
Andover
Presquile
Perth
Upper Kent
Bath
Caribou
Edmundston
Grand Falls
Sedgewick
L. Cleveland
L. Winthrop
Watt Junc.
St. Stephen
Milltown
St. Andrews
St. George
Pt. Lepreau
Deer I.
Passamaquoddy B.
Campobello I.
Grand Manan I.
Wolves
Annapolis
Windsor
Chignecto Bay
C. Chignecto
C. Split
Minas Basin
St. Martins
Quaco Hd.
Sussex
Elgin
Harvey
Apohaqui
Norton
Hampton
Alma
Kingston
Buctouche
Richibucto
Kouchibouguac R.
Richibucto Har.
Shediac Harbor
Doaktown
Boiestown
Blackville
Dungarvon R.
Bartholomew R.
Renous R.
Bay du Vin R.
Tobique R.
Nashwaak R.
Miramichi R.
Salmon R.
Canaan R.
Petitcodiac R.
Memramcook R.
Kouchibouguac R.
Richibucto R.
Buctouche R.
Gaspereau R.
Chipman
Coal Br.
Grand Lake
Washademoak Lake
Jemseg
Keswick R.
Nepisiguit R.
Bald Mtn.
Little S. W. Miramichi R.
N. W. Miramichi R.
Tracadie R.
Pokemouche R.
Caraquet R.
Gulch
Shippegan Gully
Escuminac R.
Tabusintac R.
Middle R.
Upsalquitch R.
Restigouche R.
Matapedia R.
Metapedia R.
Campbellton
Dalhousie
Heron I.
Tetagouche R.
Jacquet R.
New Mills
Charlo
Bathurst
Nepisiguit Bay
Caraquet
Pt. Miscou
MISCOU I.
SHIPPEGAN I.
Shippegan
Gulf
Tracadie
Neguac
Miramichi Bay
PORTAGE I.
Douglastown
Newcastle
Chatham
Chatham Jc.
Pt. Escuminac
North Cape
Tignish
Edmundston
L. Cleveland
L. Winthrop
Sedgewick
L. Grand Falls
Grand R.
River Saint John
Caribou
Andover
Presquile
Perth
Upper Kent
Bath
Woodstock
Hartland
Stanley
Houlton
Debec Jc.
Fredericton
Gibson
Marysville
Gagetown
Oromocto
Oromocto L.
Me Adam Jc.
Vanceboro
Mattawamkeag
Penobscot R.
Chiputneticook Lakes
St. Croix R.

Francis, *Madawaska* (draining *Lake Temiscouata*), *Tobique*, *Keswick*, *Nashwaak*, *Salmon* (expanding into *Grand Lake*, connected with the St. John by the *Jemseg*), *Canaan* (with *Washedemoak Lake*), and *Kennebecasis;* and on its right bank, the *Aroostook*, *Meduxnakeag*, and *Oromocto*. Both the main river and several of its tributaries are noted for their beautiful scenery. The St. John is navigable as far as Fredericton, upwards of 80 miles, and for light craft 140 miles farther, except when the water is low in summer. Just above the city of St. John at the mouth, however, the bed of the river contracts and forms the Narrows, through which the stream rushes with great violence at low tide, while at high water the tide produces rapids in the reverse direction. The Grand Falls, about 225 miles from the mouth, is a cataract of great beauty and grandeur, about 74 feet in height. For about 30 miles up, the river flows between upland farms, wooded hills and bold bluffs, making most delightful scenery. Then for about 50 miles farther, the banks are raised but little above the ordinary water level, forming extensive intervales or alluvial meadows, which are overflowed during the spring freshets. Beyond that again the scenery is more diversified.

A Lumbering Scene.

The **Miramichi,** 220 miles long, with its North-west and South-west Branches uniting near the mouth, is navigable for large vessels for about 50 miles. The estuary of the river broadens grandly into Miramichi Bay.

The **Restigouche** forms part of the northern boundary between New Brunswick and Quebec, and after a course of 200 miles flows into the Bay of Chaleur. This river, with its tributaries, is noted for its picturesque scenery and its excellent salmon fishing.

The **St. Croix,** which forms part of the boundary of Canada, is 125 miles long, rising in the Chiputneticook Lakes and flowing into the Bay of Fundy.

The **Petitcodiac,** 100 miles in length, is notable for the great tides which change it twice a day from an insignificant stream to a broad, navigable river, and sometimes rush up with such an impetus as to form a moving ridge of water, called "the bore."

Other considerable rivers are the *Richibucto*, the *Magaguadavic*, and the *Nepisiguit*.

The coast-line of New Brunswick is indented with a great number of fine bays and harbors.

The principal Coast Waters are:

Bay of Chaleur, *Miramichi Bay*, *Richibucto Harbor*, *Buctouche Harbor*, *Shediac Bay*, and *Baie Verte*, on the north and east; *Shepody Bay*, *Chignecto Basin*, *St. John Harbor*, and *Passamaquoddy Bay*, on the south; also *Northumberland Strait*, and the *Bay of Fundy*.

The **Bay of Fundy** is an arm of the sea extending so far into the land as nearly to make an island of Nova Scotia. It terminates in Minas Basin toward the east, and Chignecto Bay, with its two branches, Cumberland Basin and Shepody Bay, toward the north-east. Its length, to the head of Cumberland Basin, is about 140 miles, and its greatest breadth 45 miles. It is remarkable for the rapid rise and great height of its tides, varying from 30 feet at St. John to 60 feet at the inner extremity. In Baie Verte, only 14 miles distant across the isthmus, the tide rises not more than four or five feet.

The Chignecto ship railway, across the isthmus, is a notable engineering work, intended to shorten the sea voyage between the St. Lawrence and Gulf ports, and the Atlantic ports.

The principal Capes are:

Point Miscou, *Point Escuminac*, *Richibucto Head*, and *Cape Tormentine* on the east; *Cape Maranguin*, *Cape Enragé*, *Quaco Head*, *Cape Spencer*, and *Point Lepreau* on the south.

The principal Islands are:

Heron Island, near Dalhousie, in Restigouche County; *Miscou* and *Shippegan*, in Gloucester County; *Portage*, in Miramichi Bay; *Deer Island* and *Campobello*, south of Passamaquoddy Bay (the latter a resort for tourists and pleasure-seekers); and *Grand Manan*, farther to the south-east, at the mouth of the Bay of Fundy.

A Lumber Port.

The **climate** of New Brunswick is healthful. The winter is long, with steady cold; and, in the interior, snow covers the ground continuously from December to March. This is considered a great advantage as compared with an "open" or changeable winter. The summer is hot, and vegetation rapid. On the southern coast, the temperatures are less extreme and more subject to variation; and during the summer, fogs prevail, which do not, however, extend inland. The **soil**, especially along the courses of the rivers, is productive and well cultivated. Farming is carried on with much success in the south-eastern part of the province, and along the valley of the St. John. In Carleton, King's, and Westmoreland Counties, perhaps, are to be found the finest agricultural districts. The products are the same as in other parts of Canada, but very little wheat is cultivated.

The chief source of the wealth of New Brunswick heretofore has been its extensive forests, and **lumbering** is still the leading industry. In many parts of the province, the majority of the men, who work the farms in summer, spend the winter in the "lumber woods." The logs, mostly spruce, cut and hauled out to the banks of the streams while the deep snow renders sledding easy, are floated down the rivers with the spring freshets. At the numerous saw-mills the logs are cut into deals and timber, which being conveyed by suitable river-boats to the shipping ports, are there transferred to sea-going vessels. Besides the spruce, the forests furnish a considerable quantity of white pine, hemlock, and cedar; and among hardwoods, birch, beech and maple. The value of the forest products exported annually amounts to about $4,000,000.

The **fisheries** of New Brunswick are highly valuable, producing more than three millions of dollars annually, and employing about 10,500 men.

The **mineral resources** of New Brunswick have not yet been as fully developed as those of some other provinces. *Coal*, of the bituminous or "soft" kind, is found in various parts, but is worked only at the head of Grand Lake in Queen's County. *Anthracite*, or "hard" *coal*, occurs in St. John County. *Gypsum* (often called "plaster") is abundant, especially in Albert, Victoria, King's and Westmoreland. *Limestone* abounds in the south-east, and along the southern coast. Large quantities of it are worked near St. John. *Freestone*, valuable for building, is largely quarried in Westmoreland, Albert and Gloucester Counties, and occurs extensively in other parts. Harder and coarser varieties of *sandstone* are used for making grindstones. *Granite* of superior quality is worked chiefly in Charlotte and Queen's Counties. The red granite of *St. George* is largely exported. *Iron* has been mined in Carleton County, but the yield was not sufficiently remunerative. *Antimony* has been mined to a considerable extent at Lake George in York County, and *Manganese* at Markhamville in King's County. *Graphite*, or *Plumbago*, has been worked near St. John, and occurs also in the western part of the province.

While New Brunswick may not be called a manufacturing country, yet many important **manufactures** are carried on. There are large cotton and woollen mills, sugar refineries, foundries, engine works, nail factories, boot and shoe factories, tanneries, factories of furniture, house-fittings, etc.; ship-yards, board, shingle and lath mills, and many others.

Shipping and **commerce** employ a considerable proportion of the people. In amount of tonnage registered, and in number of new vessels built in a year, New Brunswick stands second among the provinces of Canada, Nova Scotia being the first.

The **revenue** of the province is about 671,000 dollars

yearly, of which the Dominion Government pays 483,546 dollars in subsidies.

The annual **imports** exceed 6,000,000 dollars in value. The annual **exports** are valued at 7,000,000 dollars, the principal being, in order, the products of the forest, the fisheries, the factory, and the farm.

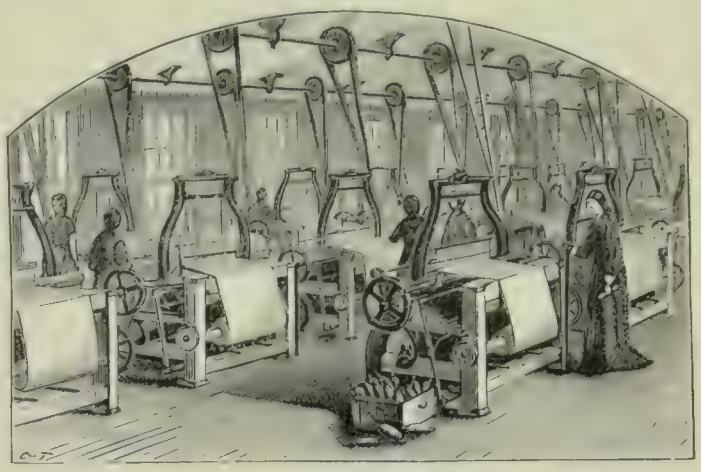
Education is well provided for in New Brunswick, by a system of free, non-sectarian public schools, established in 1871, and by a Provincial University and other colleges. There are primary, intermediate and secondary schools, all supported by public funds, furnished in part from the provincial treasury, in part by county funds, and in part by district assessment. The school law is administered by a Board of Education, with a Chief Superintendent and six inspectors. The Provincial Normal School at Fredericton is an important factor in the system. The University of New Brunswick, supported by public funds, is situated at

Interior of a Boot and Shoe Factory.

Fredericton. Mt. Allison University, owned by the Methodist Church in the Maritime Provinces, is at Sackville. St. Joseph's College, Memramcook, belongs to the Roman Catholic Church. There are well-equipped denominational academies or seminaries at Sackville and St. Martins.

New Brunswick formerly belonged to France, forming, with Nova Scotia and Prince Edward Island, the colony of Acadia. France ceded Acadia to Great Britain by the treaties of 1713 and 1763; and the northern part was formed into the province of New Brunswick in 1784. The original inhabitants were Indians of the Micmac and Milicete tribes, which now number about 1,600, and are increasing somewhat. The descendants of the early French settlers number about 57,000, residing mostly in Madawaska, Gloucester, Kent and Westmoreland Counties. The earliest British settlers came from the New England States, about 1763, and settled on the St. John River at Maugerville and elsewhere. Many of the people resident in the province are descended from the Loyalists, who came from the United States in 1783, founded Parr Town (now St. John), and soon brought about the erection of a separate province, as above mentioned. In 1867 New Brunswick became part of the Dominion of Canada.

The form of **government** continued after confederation the same as before, the Legislature consisting of the Lieutenant-Governor and two houses, the Legislative Council and the House of Assembly. The Lieutenant-Governor is appointed by the Governor-General of Canada, and administers the government through an Executive Council of nine members, responsible to the people's representatives who compose the lower house of 41 members, elected for 4 years. The 15 members of the upper house were appointed by the Lieutenant-Governor in Council; but under an Act passed in 1891, the Legislative Council was abolished in 1892, leaving only one house, as in Ontario, Manitoba, and British Columbia.



Interior of a Cotton Factory.

In means of **internal communication,** New Brunswick is not behind her sister provinces, except Ontario. She has good roads, steamboats on all the principal rivers, and railways connecting all the important points. The following are the railways: the Intercolonial (owned by the Dominion Government), with lines running from Moncton to St. John, Halifax, and Quebec, having branches to Dalhousie, Chatham, and up the Miramichi; the Canadian Pacific, connecting St. John with the upper provinces and the United States, and having lines extending to Fredericton, St. Stephen, St. Andrews, Woodstock, Houlton (Me.), Edmundston and Presqu'ile (Me.); the Shore Line, from St. John to St. Stephen; the Canada Eastern, from Fredericton to Chatham; the Central, from Norton to Chipman, and from Hampton to St. Martins; the Tobique Valley; the Elgin, Petitcodiac and Havelock; the Albert Railway, from Salisbury, on the I. C. R., to Harvey; the Albert Southern, from Albert to Alma; the Moncton and Buctouche; the N. B. and P. E. I..

from Sackville to Cape Tormentine; the Kent Northern; the Caraquet; and the Temiscouata, from Edmundston to River du Loup (Que.), and along the St. John to Upper St. Francis.

Cities and Towns.

St. John (40,000), the largest city and chief commercial centre, is situated at the mouth of the St. John River, mostly on the left bank. It has a fine harbor, accessible to vessels of the largest size at all seasons of the year. The city is naturally divided into three parts, known as the East, North and West. The first is the largest, and was the original city, three-fourths of which was destroyed by fire in 1877, but has been rebuilt, and contains many fine public buildings, business houses and private residences. The northern part was formerly the town (afterwards the city) of Portland, which was united with St. John in 1889. The west side bears the name of Carleton. This city is well situated for commerce and manufactures. In the number and tonnage of vessels owned, it is said to rank fourth among the sea-ports of the British Empire, the first three in order being Liverpool, London and Glasgow. The manufacturing industries carried on in and near the city are of considerable extent, producing, among other things, sawed lumber, shipping, steam-engines, railway-cars, castings of all sorts, edge tools, saws, nails, bolts, agricultural implements, cotton and woollen fabrics, lime, leather, boots and shoes, paper, etc.

The city presents a fine appearance as approached from the water; and the view from the hills of Carleton, opposite the falls, is not surpassed even by the view from Montreal mountain or the citadel of Quebec.

Fredericton (6,502), the capital, is situated on the right bank of the St. John River, distant from St. John about 85 miles by water and 67 miles by rail. It is built upon a broad, flat terrace of almost semicircular form, the river here curving around *St. Anne's Point*, and a range of hills forming the chord of the arc. The streets are very regularly laid out, and most of them are lined with elms, maples and other shade trees, giving the little city a beautiful appearance in summer. Among the points of interest here are the Legislative and Departmental buildings, Christ Church Cathedral, the University of New Brunswick, the Provincial Normal School, and the Canadian School of Infantry for the Maritime Provinces.

Moncton (8,763), at the bend of the Petitcodiac River, on the left bank, was made a city in 1890. It is an important railway centre, the headquarters of the Intercolonial Railway, and contains a large sugar refinery and a cotton factory. Its growth is considered to have been more rapid than that of any other town in the province.

St. Stephen (2,680), at the head of navigation on the St. Croix, is a place of much commercial activity and of progressive spirit. It is connected by a bridge with Calais, in the State of Maine.

St. Andrews (1,778), a quaint old town, picturesquely situated at the mouth of the St. Croix, is a pleasant and healthful seaside resort.

Woodstock (3,288) is the busy centre of what is said to be the finest farming country in the province. It is on the right bank of the St. John, 65 miles above Fredericton.

Chatham (3,000) and **Newcastle** (2,700), on opposite banks of the Miramichi, near its mouth, are considerable ports for the shipment of lumber and fish. Ship-building is also carried on here.

At **Bathurst, Richibucto,** and **Shediac** the same lines of business are pursued. Lobsters and oysters form an important part of the exports.

Sackville, at the head of Cumberland Basin, is in a fine farming and stock-raising country, and is the seat of the Mount Allison College and Academies.

Memramcook is the seat of a Roman Catholic college.

At **Dorchester** is located the penitentiary for the Maritime Provinces.

Dalhousie, in the extreme north, is an attractive resort in the summer time, on account of its charming scenery and its facilities for fishing and salt-water bathing.

Marysville, on the Nashwaak, a few miles from Fredericton, contains large lumber, shingle and lath mills, brick works, and the largest cotton factory in Canada. It is an incorporated town, largely owned by one energetic capitalist.

Milltown (2,146), on the St. Croix, a short distance above St. Stephen, has another large cotton mill.

Edmundston, 265 miles above St. John, is a thriving town.

Scenes in Nova Scotia.

NOVA SCOTIA.

Area, 20,600 square miles; population, 450,492; persons to square mile, 21; greatest extent, from north-east to south-west, including Cape Breton, 360 miles; greatest breadth, 110 miles.

The **Province of Nova Scotia** comprises the peninsula of Nova Scotia proper and the adjoining island of Cape Breton. It is bounded on the north by the Gulf of St. Lawrence; on the west by New Brunswick and the Bay of Fundy; and on the south and east by the Atlantic Ocean.

It is divided into eighteen counties, which, with their chief towns, are:

Counties on the East Coast.

Counties.	*Chief Towns.*
Shelburne	Shelburne.
Queen's	*Liverpool*, Milton.
Lunenburg	*Lunenburg*, Bridgewater.
Halifax	Halifax, Dartmouth.
Guysborough	*Guysborough*, Canso.

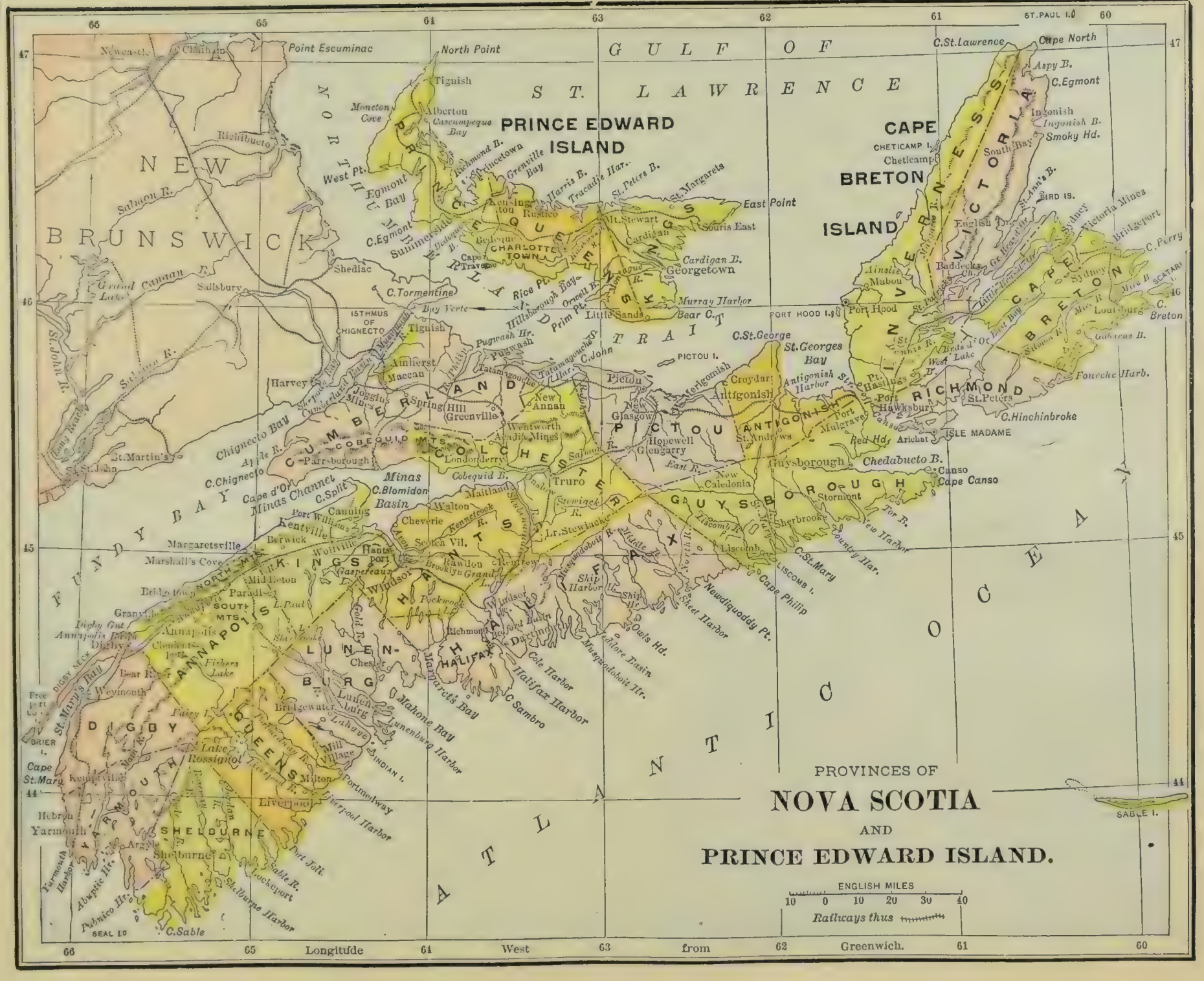
Counties on the West.

Yarmouth	*Yarmouth*, Argyle.
Digby	*Digby*, Weymouth.
Annapolis	*Annapolis*, Bridgetown.
King's	*Kentville*, Wolfville.
Hants	*Windsor.*
Cumberland	*Amherst*, Springhill, Pugwash.
Colchester	*Truro.*
Pictou	*Pictou*, New Glasgow
Antigonish	*Antigonish.*

Counties in Cape Breton.

Counties.	*Chief Towns.*
Richmond	*Arichat*, Hawkesbury.
Cape Breton	*Sydney*, North Sydney
Victoria	*Baddeck.*
Inverness	*Port Hood.*

The **surface** of Nova Scotia is hilly, varied with rich and fertile valleys. Several ranges of high hills cross the country, generally parallel with the coast-line. The *Cobequid Mountains* are the principal chain, and stretch from east to west along the peninsula which connects Nova Scotia with New Brunswick, terminating in Cape Chignecto. Their principal summits are 1,100 feet high. The *North* and *South Mountains* (about 600 feet high) extend, in parallel lines, along the shore of the Bay of Fundy; and an irregular range of small hills extends from the Strait of Canso towards the south-west. The valley between the North and South Mountains is, perhaps, the most beautiful and fertile district in the province. The general slope of the country is in a south-easterly direction, the Cobequid Mountains forming the highest land. There are numerous lakes, mostly on the southern slope. The rivers are of no great length, the longest not exceeding 50 miles.


PROVINCES OF
NOVA SCOTIA
AND
PRINCE EDWARD ISLAND.
ENGLISH MILES
10 0 10 20 30 40
Railways thus
Longitude West from Greenwich.
GULF OF ST. LAWRENCE
ATLANTIC OCEAN
NEW BRUNSWICK
PRINCE EDWARD ISLAND
CAPE BRETON ISLAND
FUNDY BAY
NORTHUMBERLAND STRAIT
ANNAPOLIS
KINGS
HANTS
COLCHESTER
CUMBERLAND
PICTOU
ANTIGONISH
GUYSBOROUGH
RICHMOND
INVERNESS
VICTORIA
CAPE BRETON
LUNENBURG
HALIFAX
QUEENS
SHELBURNE
YARMOUTH
DIGBY
Point Escuminac
North Point
C.St.Lawrence
Cape North
Aspy B.
C.Egmont
Ingonish
Smoky Hd.
Tiguish
Moncton
Cocagne
Alberton
Cascumpeque Bay
Richibucto
West Pt.
Egmont Bay
Summerside
Richmond B.
Princetown
Grenville Bay
Harris B.
Tracadie Har.
St.Peters B.
St.Margarets
East Point
Souris East
Mt.Stewart
Cardigan
Cardigan B.
Georgetown
Murray Harbor
Bedeque
Cape Traverse
CHARLOTTE TOWN
Rice Pt.
Hillsborough Bay
Ornell B.
Prim Pt.
Little Sands
Bear C.
Bay Verte
C.Tormentine
Shediac
Salisbury
Grand Cannan L.
Salmon R.
St.John R.
ISTHMUS OF CHIGNECTO
Tiguish
Pugwash
Pugwash Hr.
Tatamagouche
Tatamagouche Bay
C.John
PICTOU I.
Pictou
Harvey
Amherst
Maccan
Joggins Mines
Spring Hill
Greenville
New Annan
New Glasgow
Hopewell
Glengarry
Londonderry
Wentworth
Acadia Mines
Parrsborough
C.Chignecto
Chignecto Bay
Apple R.
Cape d'Or
Minas Channel
C.Split
C.Blomidon
Minas Basin
Cobequid B.
Cobequid Mts.
Truro
Salmon R.
East R.
New Caledonia
Maitland
Walton
Cheverie
Kennetcook R.
Lr.Stewiacke
Stewiacke R.
Canning
Port Williams
Kentville
Cornwallis R.
Margaretsville
Berwick
Wolfville
Marshall's Cove
Hants port
Gaspereaux
Rawdon
Brooklyn
Grand L.
Scotch Vil.
Mid.Burton
Paradise
Bridgetown
Granville
Annapolis
Digby
Clementsport
Fishers Lake
Bear R.
Weymouth
Digby Neck
St.Mary's Bay
Free Port
Brier I.
Cape St.Mary
Yarmouth
Hebron
Lake Rossignol
Milton
Liverpool
Mill Village
Indian I.
Portmouth
Liverpool Harbor
Lunenburg
Lahave
Bridgewater
Mahone Bay
Lunenburg Harbor
Margaret's Bay
Chester
Halifax
Dartmouth
Bedford Basin
Cole Harbor
Halifax Harbor
C.Sambro
Musquodoboit Hr.
Musquodoboit R.
Middle R.
Ship Hr.
Ship Harbor
Owls Hd.
Sheet Harbor
Newdiquoddy Pt.
Cape Philip
Liscomb R.
Liscomb
Liscomb I.
C.St.Mary
Country Har.
Tor B.
New Harbor
Sherbrooke
Stormont
Guysborough
Chedabucto B.
Canso
Cape Canso
Isle Madame
Red Hd.
Arichat
Port Hawkesbury
Port Mulgrave
St.Peters
C.Hinchinbroke
Fourche Harb.
Gabarus B.
Louisburg
Mire R.
Mire B.
Scatari I.
C.Breton
Sydney
Victoria Mines
Bridgeport
C.Perry
Baddecks
Gr.Bras d'Or
Little Bras d'Or
St.Patricks Ch.
Ainslie L.
Mabou
Port Hood
FORT HOOD I.
St.Georges Bay
C.St.George
Bras d'Or Lake
West R.
St.Denis R.
Antigonish
Croydart
Pomquet
Antigonish Harbor
St.George R.
Pt.Hastings
Salmon R.
Sable I.
Seal I.
C.Sable
Shelburne
Shelburne Harbor
Port Joli
Sable R.
Lockeport
Abuptic Hr.
Pubnico Hr.
Yarmouth Harbor
Tusket R.
Tusket Is.
Wedge I.
Brier I.
Digby Gut
Annapolis Basin
Bridgetown
Granville
Round Hill

Cape Breton is, in general, undulating, with lofty, rugged promontories towards the sea, especially on the north. The coal districts are generally level. The coast-line is much broken, and the island is nearly cut in two by the *Bras d'Or Lake*, which extends from north to south, and is separated from St. Peter's Bay, on the south, only by a narrow neck of land less than half a mile wide. A canal is constructed across the isthmus. This lake is connected with the Atlantic on the north by two channels, called the *Great* and *Little Bras d'Or*, between which is the island of *Boularderie*.

The principal Rivers in Nova Scotia are:

St. Mary's, *Musquodoboit*, *La Have*, and *Liverpool*, flowing into the Atlantic; the *Annapolis*, flowing between the North and South Mountains, into Annapolis Basin; the *Cornwallis* and the *Avon*, into the Basin of Minas; the *Shubenacadie*, into Cobequid Bay; and the *East*, *Middle*, and *West Rivers*, into Pictou Harbor. Besides these, there are numerous small streams in Nova Scotia proper and in Cape Breton.

The rivers flowing into the branches of the Bay of Fundy are affected by the tide in the same way as in New Brunswick. For instance, the Annapolis at high tide can be ascended by schooners for 20 miles, but at low tide it is an insignificant stream.

The **principal lakes** in Nova Scotia are *Lake Rossignol*, 12 miles in length, in Queen's County, and *Grand* and *Ship Harbor Lakes* in Halifax County. Smaller lakes are numerous, and generally occur in chains, connected by small rivers.

The *Bras d' Or Lake* so called is more properly a land-locked arm of the sea.

The **coast-line** of Nova Scotia, as well as that of Cape Breton, is much broken, and deeply indented with numerous bays and harbors, except on the side of the Bay of Fundy, where it is more compact, and possesses few harbors.

The principal Bays, Harbors, and Straits are:

Baie Verte, *Tatamagouche* and *St. George's Bays*, in Northumberland Strait; *Chedabucto Bay*, at the entrance of the *Gut of Canso*, a narrow strait separating Nova Scotia from Cape Breton; *Halifax Harbor*, *Margaret's*, and *Mahone Bays*, on the south-east coast; *St. Mary's Bay* on the south-west; *Annapolis Basin*, *Minas Channel and Basin*, and *Cobequid Bay*, on the west; and *Bay of Fundy*. The chief inlets in Cape Breton are *Aspy Bay*, *St. Anne's Bay*, *Sydney Harbor*, *Mira Bay*, and *St. Peter's Bay*.

The **islands** of Nova Scotia, besides Cape Breton, are *Caribou* and *Pictou Islands*, in Northumberland Strait; *St. Paul*, *Scatari*, and *Isle Madame*, off the coast of Cape Breton; *Sable Island*, a dangerous, sandy shoal, 150 miles east of Halifax, on which is an effective humane establishment, maintained by the Dominion Government, for the relief of shipwrecked sailors; *Cape Sable*, *Seal*, and *Mud Islands*, in the south; *Long Island* and *Brier Island*, at the mouth of St. Mary's Bay.

The principal Capes are:

Malagash, *John*, *St. George*, on the north coast; *Porcupine*, *Canso*, *Sambro Head*, *Crown Point*, and *La Have*, on the south-east; *Sable*, on the south; *St. Mary*, *Split*, *Chignecto*, and *Blomidon*, on the west.

In Cape Breton are *St. Lawrence*, *North*, *Egmont*, *Smoky Head*, and *Breton*.

Many of these capes form rugged promontories, rising to the height of 500 feet. The whole of the coast, especially on the Atlantic side, is bold and rocky, and lined with dangerous reefs.

The **climate** of Nova Scotia is mild and healthful, less subject to extremes of heat and cold than is that of New Brunswick, owing to its being nearly surrounded by water, and to the influence of the Gulf Stream. The harbors on the Atlantic are seldom closed by ice in winter.

The **soil** in the valleys and on the mountain slopes is rich and productive, but towards the Atlantic coast it is rocky and less fertile. Oats, potatoes, and hay are the principal agricultural products; apples of the finest varieties grow abundantly in the west; and there also cattle are extensively reared.

Nova Scotia is the most important of the eastern provinces of the Dominion for the extent and variety of its mineral productions. Gold, iron, coal, and gypsum are found to a greater extent than in any of the other provinces. It also contains copper and building-stone in abundance. The total quantity of coal annually raised is about 2,000,000 tons. The principal coal mines are in Cape Breton Island and Pictou County. Iron and coal are found in the Cobequid Mountains, and in Annapolis and Pictou Counties the former is largely mined. Gold is found along most of the Atlantic coast, but is worked chiefly in Guysborough, Halifax, Hants, and Lunenburg Counties.

Nova Scotia has also the most extensive fisheries of all the provinces of the Dominion. The principal are the cod, mackerel, and salmon fisheries. The exports of fish are chiefly to the West Indies and the Southern States of America, and amount to over 7,500,000 dollars, affording employment to about 25,000 men.

PROVINCIAL LIBRARY
VICTORIA, B.C.

There are several lines of **railway** in Nova Scotia: the Intercolonial, from Halifax to New Brunswick, with a branch from Truro to Pictou and Port Mulgrave; the Windsor and Annapolis, from Windsor Junction to Annapolis; the Western Counties, from Annapolis to Yarmouth; the Nova Scotia Central, from Annapolis to Liverpool; the Oxford and Pictou; the Cape Breton Railway, connecting Sydney with the Strait of Canso, and others.

The annual **imports** of Nova Scotia, in 1891, were valued at $9,497,401, and the exports at $9,925,646; revenue, $664,938. The form of **government** is the same as in Quebec. The Legislative Council consists of 17 members, appointed by the Crown, and the Legislative Assembly of 38 members, elected by the people once in four years. The Lieutenant-Governor is assisted by an Executive Council of 9 members.

Education receives a large share of public interest, and is efficiently supported by government grants. The public schools are free and non-sectarian, as in New Brunswick. There are five colleges.

Nova Scotia was first settled by the French, but has changed ownership repeatedly, having been taken four different times by the British, and as often relinquished, until France, in 1713, renounced all claim to the country. The French, however, still retained the Island of Cape Breton, with the fortified town of Louisburg, which was not taken by the British till 1758. The island was finally ceded to Great Britain in 1763. Nova Scotia, Cape Breton, Prince Edward Island, and New Brunswick then formed the colony of Acadia, and it was not till 1784 that they were created separate colonies. In 1819 Cape Breton was reunited to Nova Scotia.

Halifax (38,556), the capital, is situated on the west side of a deep and capacious harbor, formerly called Chebucto Bay. It was founded by Lord Cornwallis in 1749, when about 4,000 colonists were sent out from Britain. It is built on the side of a steep hill, crowned by the citadel, and is, next to Quebec, the most strongly fortified city in the Dominion. It contains many fine edifices—the Parliament and other public buildings, churches, etc. It has also Her Majesty's dockyard, and is the naval station for the North American and West Indian fleets—the Admiral generally residing here during the summer. Dalhousie University and St. Mary's College are situated in Halifax. It has an extensive shipping trade.

Pictou (3,000) and the adjacent town *New Glasgow* (3,776) derive their importance from the extensive coal mines in the neighborhood. During the season of navigation their harbors are crowded with shipping. Pictou has steam communication with Quebec.

Sydney, C.B. (2,426), is also important as the centre of extensive mines, from which coal is largely exported.

Yarmouth (6,087), **Liverpool** (2,465), and **Lunenburg** (4,044) have a large amount of shipping, and are extensively engaged in the fisheries. *Windsor* (2,837) exports much gypsum, and is the seat of King's College, the oldest in British North America. *Annapolis*, formerly Port Royal, was, under the French, the principal settlement in *Acadie*, and the scene of several conflicts. *Dartmouth*(4,576), *Amherst* (3,781), *Springhill* (4,813), and *Pugwash* are important towns. St. François Xavier College is situated at *Antigonish*. At *Truro* (5,102) the Provincial Normal School has its site. The village of *Wolfville* is the seat of Acadia University.

PRINCE EDWARD ISLAND.

Area, 2,133 square miles; population, 109,080; persons to square mile, 50; greatest extent from east to west, 130 miles; and from north to south, 34 miles.

Prince Edward Island is situated in the Gulf of St. Lawrence, to the north of Nova Scotia, and between New Brunswick and Cape Breton. It is separated from New Brunswick and Nova Scotia by Northumberland Strait, which is 130 miles long, and from 9 to 30 miles wide. It is divided into three counties—*King's*, *Queen's*, and *Prince's*, which are subdivided into 67 lots or townships.

The **surface** of Prince Edward Island is gently undulating, except in certain central districts, which may be considered hilly; the whole presenting a charming agricultural aspect of hill and dale.

Its northern outline resembles a crescent, the two horns of which are called *North* and *East Capes*. The island is deeply indented with bays, the largest of which, *Hillsborough Bay* on the south, and *Richmond Bay* on the north, nearly divide it into three parts. It has also numerous harbors, the principal of which are those of *Charlottetown*, *Georgetown*, *Bedeque*, *Egmont*, *Cascumpec*, and *Souris*.

The **climate** is temperate and healthful, and the soil remarkably fertile and favorable for agriculture. Prince Edward Island has more land under cultivation, in proportion to its size, than any of the other provinces. Potatoes, oats, and barley are the staple productions, and are largely exported.

The lots or townships were originally granted by the British Government to proprietors, nearly 100 in number, on certain conditions which had never been fulfilled, thus originating a "land question," that long caused great difficulty, but was at length settled by Government commission. The fertility of the soil has induced a large population to make the island their permanent home, and it is already the most densely peopled of the British North American provinces. Ship-building is carried on extensively; and the fisheries in the gulf give employment to a large number of men; but farming is the leading industry.

A submarine telegraph connects the island with New Brunswick, crossing the narrowest part of Northumberland Strait, between Capes Tormentine and Traverse, a distance of 9 miles. In winter the mails are carried over between the same points in boats fitted for the ice or for water. Navigation is wholly obstructed from the end of December to the beginning of April.

A Government railway connects Charlottetown, the capital, with Summerside, Cascumpec, and Tignish on the west, and with Georgetown and Souris on the east.

The **imports** of Prince Edward Island in 1891 amounted to 623,000 dollars, and the exports to about 1,350,000 dollars. The revenue is about 225,000 dollars. The form of government is similar to that of Quebec and Nova Scotia; but the Upper House of the Legislature is an elective body. The Executive Council has 9 members, the Legislative Council 13 members, and the Legislative Assembly 30 members. Education is very liberally supported, and is directly under control of the Government. The system is very similar to that of New Brunswick.

Prince Edward Island formerly belonged to France, but was ceded to Britain in 1763, after the capture of Louisburg and Cape Breton. It was called St. John's Island till the beginning of the present century, and received its present name in honor of Prince Edward, Duke of Kent, the father of Queen Victoria. It was formed into a separate province in 1770, and was admitted into the Dominion of Canada in 1873.

Charlottetown (11,373), the capital, is situated on the north side of a large, safe, and commodious harbor, formed by the junction near the city of the North, East, and West Rivers. The city is 3 miles from the entrance of the harbor, and is built on gently rising ground, with very wide streets. The Provincial buildings, churches, and colleges (Prince of Wales and St. Dunstan) are the chief edifices. It carries on the principal trade of the island, and is largely engaged in ship-building. It is also the county town of Queen's County.

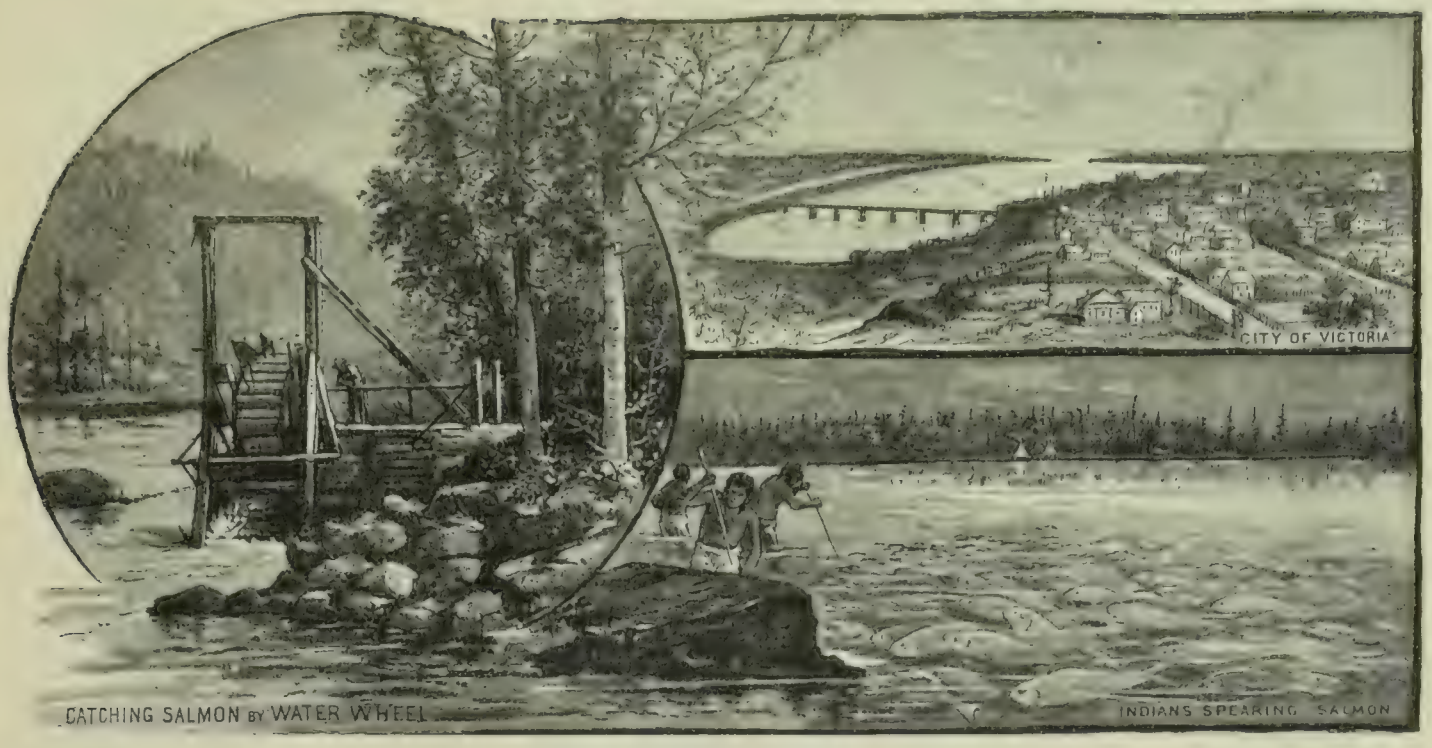
Georgetown (1,510), the county town of King's County, about 30 miles east of Charlottetown, is an important place, with a fine harbor.

Summerside (2,882), in Prince's County, about 40 miles west of Charlottetown, on the north side of Bedeque Harbor, is a rapidly rising town, with much ship-building and important trade with New Brunswick.

Princetown, on Richmond Bay, is the county town of Prince's County.

Many thriving villages are to be found all over the island, and the situations of these are, in most cases, unrivalled for beauty and salubrity.

MAP OF THE PROVINCE
OF
BRITISH COLUMBIA
ENGLISH MILES
0 25 50 100 200
Railroads
Longitude West from Greenwich
141 138 135 132 129 126 123 120 117 114 111
60 57 54 51 48
UNEXPLORED
UNITED STATES
PACIFIC OCEAN
QUEEN CHARLOTTE ISLANDS
VANCOUVER ISLAND
Dixon Entrance
Hecate Strait
Queen Charlotte Sd.
Strait of Georgia
Juan de Fuca Strait
Cape Flattery
Cape St.James
Cape Scott
Cape Cook
Cape Spencer
Mt.Fairweather 15,500
Mt.Crillon 15,900
Mt.Logan 19,500
Mt.St.Elias 18,000
Mt.Brown 16,000
Mt.Hooker
Sullivan's Peak
Mt.Murchison
Mt.Lefroy
Mt.Head
Victoria Peak 7404
Mt.Robson 13,700
Mt.Assiniboine
Mt.Clemenceau
Mt.Sir Sandford
Mt.Sir Donald
Mt.Stephen
Mt.Dennis
Mt.Macdonald
Mt.Begbie
Mt.Revelstoke
Mt.Cheadle
Mt.Goodsir
Mt.Forbes
Mt.Temple
Mt.Hunter
Mt.Lyell
Mt.Columbia
Mt.Alberta
Mt.Edith Cavell
Mt.Robson
Mt.Brown
Mt.Hooker
Mt.Murchison
Mt.Lefroy
Mt.Head



Scenes in British Columbia.

BRITISH COLUMBIA.

Area, 383,300 square miles; population, about 100,000; greatest extent from north to south, 760 miles; and from east to west, including Vancouver Island, 570 miles. Vancouver Island, *greatest length, about 300 miles; greatest breadth, 90 miles, with an area of about 20,000 square miles.*

British Columbia is the most western province of the Dominion, and consists of Vancouver Island and the mainland, or British Columbia proper, which were formerly two separate provinces.

It is bounded on the north by the parallel of 60° N.; on the east by the meridian of 120° W. to latitude 54° and the Rocky Mountains; on the south by the parallel of 49° (the boundary of the United States), the Gulf of Georgia, and Juan de Fuca Strait; and on the west by the Pacific Ocean.

The **surface** of British Columbia is in general mountainous and intersected by numerous rivers and lakes. The **Rocky Mountains,** which form the eastern boundary, extend from north to south in two parallel chains, the eastern being the main and most important, containing the highest peaks in the whole range,—Mount Hooker (16,750 feet), Mount Brown (16,000 feet), and Mount Murchison (15,700 feet), besides others but little short of them in elevation. Parallel to the main chains are other smaller ranges, as the *Gold* and *Selkirk* ranges, enclosing the upper courses of the Columbia and Fraser Rivers, and the *Peak Mountains*, enclosing the upper course of the Finlay River. The principal passes across the Rocky Mountains are the *Kootanie*, *Vermilion*, *Kicking Horse*, *Yellow Head* or *Leather*, and the *Peace River Passes*, the Kicking Horse Pass being the route of the Canadian Pacific Railway.

On the west, the **Cascade Range** extends northward from the mouth of the Fraser River to Alaska, closely following the Pacific coast, and being from 60 to 100 miles in breadth. A few of the summits of this range attain an altitude of 10,000 feet. The most valuable part of the country lies between the Rocky Mountains and the Cascade Range, forming an elevated table-land varying from 1,000 to 3,500 feet in height, through which the Fraser River flows.

The **rivers** and **lakes** of British Columbia are numerous, but of little importance to navigation. The *Fraser River* rises in the main chain of the Rocky Mountains, and, flowing north, passes through a gap in the lesser chain, where it is joined by its northern branch, then, following a southern course, it receives the *Neehaco*, *Quesnel*, *Chilcoten*, and

Thompson Rivers, and flows into the Gulf of Georgia by three mouths, after a course of 740 miles. It is navigable for small steamers to Fort Hope, a distance of 158 miles from its mouth, but the numerous rapids above that point render navigation almost impossible. The *Peace River*, and its northern branch, the *Finlay River*, rise in the northern part, also between the Rocky Mountain chains, and flow eastward to form the *Mackenzie River*. Farther north are the *Skeena* or *Simpson*, and *Stickeen*, flowing into the Pacific, and the *Au Liards*, flowing into the Mackenzie River. The *Columbia River*, the most important on the Pacific coast, rises in the southern part of the Rocky Mountain ranges in British Columbia, then, like the Fraser, first flowing northward, bends to the southward, and after receiving the Kootanie River, flows through Washington Territory in the United States into the Pacific Ocean, after a course of about 1,200 miles. The lakes are numerous, but of minor importance.

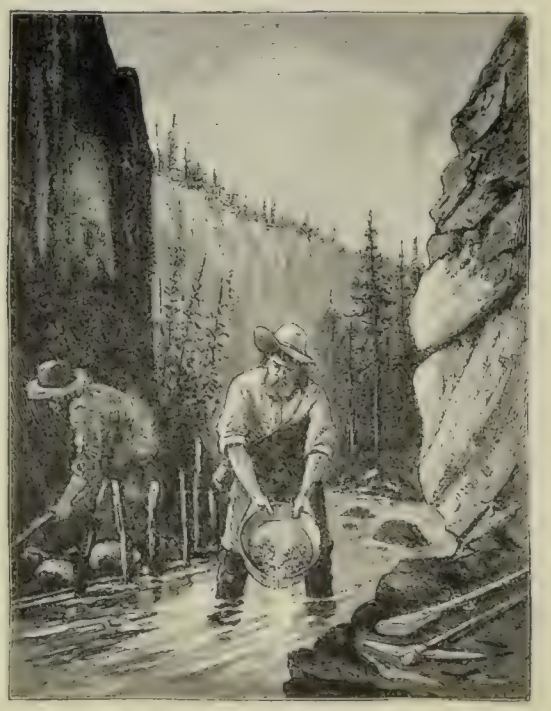
The **coast-line** of British Columbia is much broken with numerous islands, bays, and deep inlets, and it is remarkable that while from San Francisco to Cape Flattery, a distance of 700 miles, there is not a single harbor on the coast, in British Columbia and Vancouver Island harbors are numerous and excellent. The islands are disposed chiefly in two groups, the more southerly, of which *Vancouver Island* is the principal, being separated from the mainland by *Juan de Fuca Strait*, the *Gulf of Georgia*, and *Queen Charlotte Sound;* and the other, about 200 miles to the north-west, called the *Queen Charlotte Islands*, being separated from the mainland by *Vancouver Strait*. The other islands to the north belong to the United States, being part of the territory of Alaska. The principal inlets are *Burrard Inlet*, *Howe Sound*, *Jervis*, *Bute*, and *Knight Inlets*, *Bentinck Arm*, *Gardner's Channel*, *Port Essington*, *Portland* and *Observatory Inlets*, in the mainland; *Quatsino*, *Nootka*, and *Barclay Sounds*, in the west coast of Vancouver Island; and the harbors of *Esquimalt*, *Victoria*, and *Nanaimo*, in the south and east of Vancouver Island.

The **climate** of British Columbia is temperate, and much warmer than in the same latitude on the east coast of the continent. Between the Cascade Range and the Rocky Mountains it is very dry, but on the coast and in the islands the climate is humid. On the islands the fig will ripen in the open air, and even in winter the climate is very mild. As a fruit-growing country it is surpassed by no other in the world.

The **soil** is in general fertile, and well adapted for agriculture and pasturage, although as yet little progress has been made in farming. Along the western slopes of the Cascade Mountains are magnificent forests of Douglas pine, and the islands also are densely wooded.

British Columbia first derived its importance from the rich and extensive gold discoveries which were made in 1858, principally along the course of the Fraser River and its tributaries. The gold-fields, however, have not been found so productive as was at first anticipated. Silver, lead, and copper are abundant. Excellent coal is found both on the mainland and on the islands, and is worked in Vancouver Island. Marble and building-stone are also found, and are exported to the United States.

The chief **exports** are gold, silver, coal, lumber, furs, and fish, amounting to about 6,200,000 dollars annually. The fish alone are estimated to be worth over 2,000,000 dollars. Salmon, cod, haddock, halibut, and sardines are abundant. The



GOLD-WASHING.

imports are about 5,500,000 dollars. The revenue is about 835,500 dollars.

Previous to 1858, the whole country was in the possession of the Hudson Bay Company. In that year British Columbia and Vancouver Island were formed into Crown colonies, each having a Governor and Legislature of its own. In 1866 a legislative union was effected, under the name of British Columbia, in compliance with the wishes of the people; and in 1871 British Columbia became one of the provinces of the Dominion of Canada.

The **Legislature** consists of a Lieutenant-Governor, appointed by the Governor-General, an Executive Council of 5 members, and a Legislative Assembly of 25 members, elected by the people for a term of four years. The province

is represented in the Dominion Parliament by 3 senators and 6 members of the House of Commons.

The province is divided into five districts—*New Westminster, Cariboo, Yale, Victoria*, and *Vancouver*.

Education is liberally provided for, free schools being established where there are twelve children to attend them.

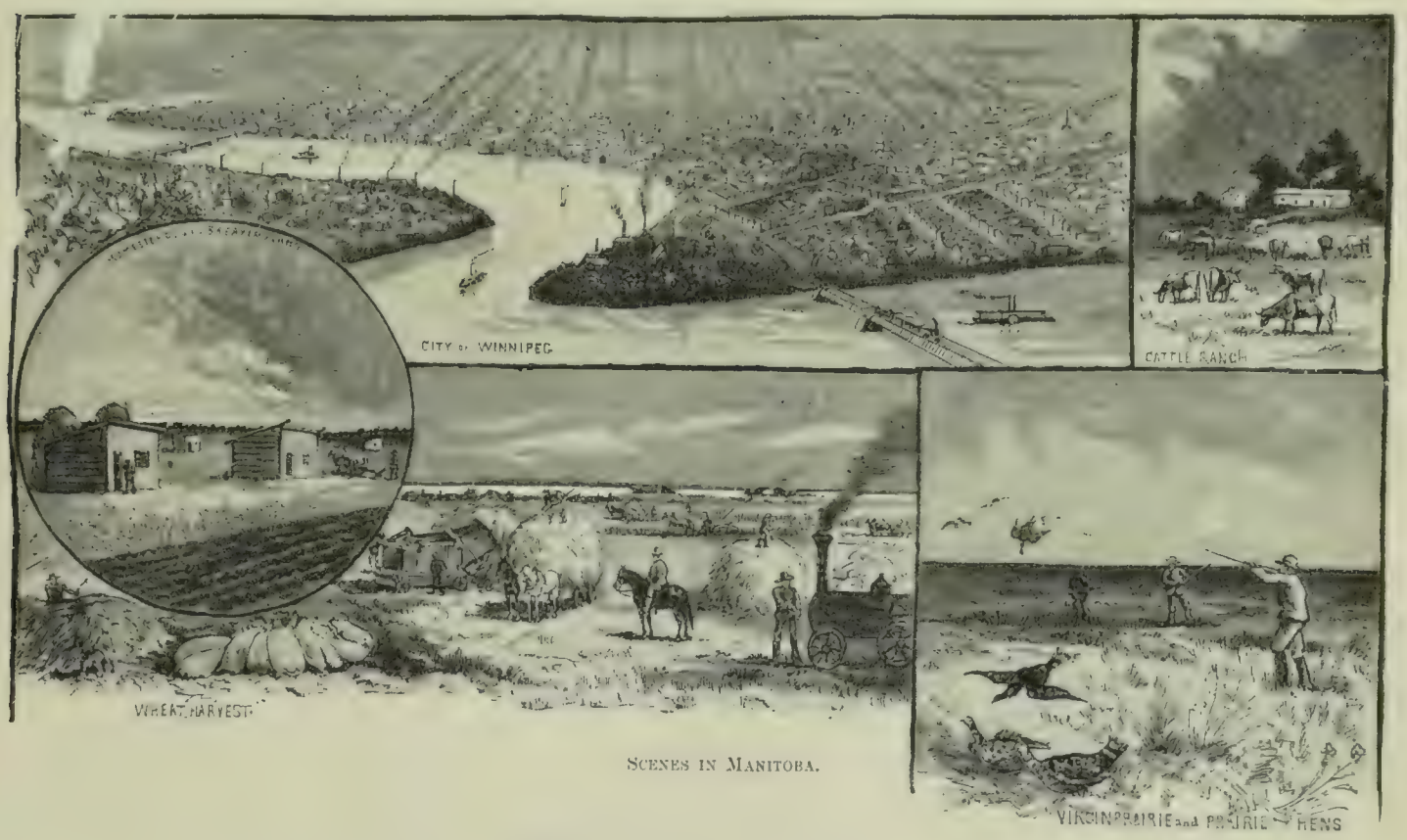
Victoria (16[illegible]), the capital, is situated in the south of Vancouver Island, and possesses an excellent harbor. It is well laid out and carries on the principal trade of the province. *Nanaimo* (4,595), Vancouver Island, are valuable coal mines.

New Westminster (6,700), the former capital, is beautifully situated on the north bank of the Fraser River, about 15 miles from the gulf, and carries on the principal local trade of the mainland.

Vancouver (on the mainland) is a prosperous city of recent growth. Its population is now about 15,000.

Esquimalt possesses a magnificent harbor, and is Her Majesty's naval station in the North Pacific.

Hope, Yale, Lytton, Kamloops, Port Essington, and *Port Simpson* are growing towns. The other settlements are small, and are chiefly situated on the Fraser River.



SCENES IN MANITOBA.

MANITOBA.

Area, about 74,000 square miles; population, 155,000; persons to a square mile, 2.

The **Province of Manitoba** (formerly the Red River Settlement) forms an oblong, lying between the United States on the south and latitude 53° on the north, and extending east and west between 91° 10′ and 101° 30′ of longitude.

It is intersected from south to north by the *Red River*, which, rising in Minnesota, near the sources of the Mississippi, and flowing nearly due north, crosses the boundary between the two countries, and falls into *Lake Winnipeg*, after a course of about 700 miles. It is also partially intersected from west to east by the *Assiniboine River*, which flows into the Red River at Winnipeg. Lakes Winnipeg and Winnipegosis, which lie partly in Manitoba, and Lake Manitoba, which lies wholly within it, and from which it derives its name, are of considerable size, the first-named being 280 miles long, and the other two being each about 110 miles long.

The country is chiefly one vast prairie covered with grass.

with few trees, except on the banks of the rivers. The climate resembles that of Ontario, and the soil is very fertile, producing wheat and other grains, besides roots and vegetables, in great abundance.

Before Manitoba became a province of the Dominion (1870), the population consisted chiefly of Indians and French and British half-breeds. Since then settlers have poured in from the older provinces, and there are now nearly 30,000,000 acres of land surveyed for settlement. A considerable portion of the land is reserved for the half-breeds, chiefly on the banks of the Red River.

Between 1881 and 1891 the province increased its population at the rate of 134 per cent.

Harvest Scene on the American Plains.

The **government** of Manitoba is administered by a Lieutenant-Governor, with an Executive Council of 5 members, and a Legislative Assembly of 35 members, elected by the people. They also send 3 members to the Senate, and 5 members to the House of Commons, as their proportion of representatives in the Dominion Parliament.

Imports in 1891, 2,782,599 dollars; exports, 1,612,124 dollars; revenue, 586,000 dollars.

Winnipeg (25,700), the capital, is situated at the junction of the Assiniboine with the Red River. It is the seat of government, and is rapidly becoming a place of importance. It is the seat of the University of Manitoba, of Manitoba College, St. John's College, and the Provincial Normal School. It has many fine public buildings. Opposite to it is *St. Boniface*, the seat of a college. *Brandon*, on the Assiniboine (4,000), is beautifully situated, and has a flourishing trade. *Portage la Prairie* (3,400) is in the heart of a rich agricultural district. Other chief towns are *Emerson*, near the Dakota boundary line; and *Stonewall*, the seat of the provincial penitentiary. *Selkirk*, *Minnedosa*, *Gladstone*, *Rapid City*, *Nelson*, *Morris*, and *Birtle* are important points.

Prairie on Fire.

ATHABASCA, ALBERTA, SASKATCHEWAN, AND ASSINIBOIA.

These extensive western areas have been formed from a portion of what was known as the Hudson Bay Territory before it came into the possession of Canada. In the meantime they are recognized only as districts, because their population is too scanty and too widely spread to make it necessary that they should be organized as provinces. For the same reason, one Lieut.-Governor presides over their united Legislature of 26 members. Each district sends one representative to the Dominion House of Commons, and two senators represent all the districts in the Upper Chamber.

Athabasca.—This is bounded on the north by a line near the 60th parallel of north latitude, on the south by a line near the 55th parallel of north latitude, on the west by British Columbia, and on the east by the Slave and Athabasca Rivers, and by a line near meridian 111° 30′ west longitude. Area, about 103,000 square miles. It includes

the Peace River valley, admirably adapted for grazing purposes.

Alberta is bounded on the north by Athabasca, on the south by the United States, on the west by British Columbia, and on the east by a line near meridian 111° 30′ west longi-

A Prairie Herd.

tude. It includes the rich valleys of the Battle, Bow, and Deer rivers. Area, about 105,000 square miles; population, 25,300.

Edmonton and Fort McLeod are the chief towns.

Saskatchewan.—This is bounded on the north by a line near the 55th parallel, on the south by a line near the 52nd parallel, on the west by Alberta, and on the east by Manitoba and Lake Winnipeg. This district is well watered by the river from which it derives its name. The Saskatchewan is navigable for small vessels for upwards of 700 miles. Coal exists in great abundance. Area, about 107,000 square miles; population, 11,200.

The chief towns are Battleford and Prince Albert.

Assiniboia.—This district is bounded on the north by Saskatchewan, on the south by the United States, on the west by Alberta, and on the east by Manitoba. Area, about 89,500 square miles; population, upwards of 30,000.

Regina, the chief town, is also the capital of the "North-west Territories," the name by which these districts are commonly known.

The Trappers' Return.

NORTH-WEST AND NORTH-EAST TERRITORIES.

These territories occupy all that lies north of the provinces and districts of the Dominion, and are respectively west and east of Hudson Bay.

An Indian Encampment.

The **North-west Territory** is well watered, containing a large number of rivers, the principal of which is the *Mackenzie River*, formed by the junction of the Athabasca and Peace Rivers, which rise near the highest summits of the Rocky Mountains, and unite a little north of Athabasca Lake, through the west end of which the Athabasca River flows. After the junction, the river flows through Great Slave Lake, drains Great Bear Lake, and having a course of over 1,773 miles enters the Arctic Ocean by a number of mouths. It is navigable for more than 1,200 miles, but being frozen for the greater part of the year can never be of much service to commerce. The other principal rivers are the *Coppermine* and *Back* or *Great Fish Rivers*, flowing into the Arctic Ocean. The *Churchill*, draining Lake Winnipeg, and *Severn*, besides

numerous smaller streams, flow into Hudson Bay, and the *Albany*, *East Main*, and other rivers, flow into James Bay.

The Indians inhabiting the country are the Crees around Hudson Bay, and the Saulteaux farther in the interior, both inoffensive tribes, subsisting by trapping and fishing; and farther west, in the vast prairies, are the more war-like Blackfeet and other tribes living on the produce of the chase. In the more northern districts are the Eskimo.

The **North-east Territories** are bleak and sterile, inhabited sparsely by Eskimo and other aborigines, chiefly of Algonquin stock.

These territories are valuable for their timber, and are thought to possess mineral wealth.

NEWFOUNDLAND.

Area, 42,200 square miles; population, 202,000; persons to square mile, 4½; greatest extent from north to south, 350 miles; breadth from east to west, 320 miles.

The **Island of Newfoundland** lies at the mouth of the Gulf of St. Lawrence. It is separated from Labrador on the north by the Strait of Belle Isle (about 12 miles in breadth), and is distant from Cape Breton, on the south-west, about 60 miles. It is the only settlement in British North America not forming part of the Dominion of Canada. It is divided into 18 electoral districts.

Cod-Fishing.

The territory under the **government** of Newfoundland includes also the coast of Labrador (4,200) for nearly 700 miles, from Anse Sablon to the entrance of Hudson Strait. The principal islands on the coast are *North* and *South Belle Isle* and *Fogo Island*.

The **Island of Newfoundland** is triangular in shape, but the coast-line is deeply indented with numerous large bays. The principal of these are:

Conception, Trinity, Bonavista, Notre Dame, and *White Bays,* on the north-east coast.

Bay of Islands and *St. George,* on the west.

Hermitage, Fortune, Placentia, and *St. Mary's Bays,* on the south.

As the bays extend far into the land, they form numerous peninsulas. The principal is the *Peninsula of Avalon*, which contains nearly two-thirds of the whole population.

The principal Capes are:

Bauld, on the north; *Ray, May, St. Mary,* and *Race,* on the south; and *St. Francis, Grates, Breakheart, Bonavista, Freels,* and *St. John,* on the east.

Cape Race was formerly the calling point of the Atlantic steamships with late news from Europe. A line of telegraph connects it with Cape Ray, from which a submarine telegraph line extends to Cape Breton, and thence over the continent. After repeated failures, several Atlantic telegraph cables have been successfully laid, and now connect Newfoundland at Trinity Bay with Europe at Valentia Bay in Ireland. European news is now published in the American newspapers on the same day as that on which the events occur. On the north and east coasts the capes are numerous, but of little importance. There has been no thorough survey made of the island, which is but thinly inhabited, especially in the west. The settlements comprise only a narrow strip along the coast, scarcely extending more than a mile or two inland.

The **surface** of the island is hilly, varied with numerous rivers, lakes, and marshes. The ranges of hills generally run in short parallel chains, from north to south. The *Blue Hills* in the interio · are the principal.

Lakes and Rivers.—The chief river is the *River of Exploits*, which flows almost across the island from south-west to north-east, through *George IV.* and *Red Indian Lakes.*

The other chief Lakes and Rivers are:

Grand Pond, drained by the *Humber River; Victoria, Jameson*, and *Bathurst Lakes*, drained by *Little River;* and *Gander Pond*, drained by *Gander River.*

The **climate** of Newfoundland is cold and severe, owing to the quantity of ice to be found around the island, brought down by the winds and currents in enormous icebergs from the Arctic Ocean. Fogs also prevail, especially on the Banks, and are caused by the cold currents from the north meeting the warmer Gulf Stream. The soil, especially in the interior, is rocky and barren, the principal crops being grown along the southern shore: even there they frequently require to be cut green for fodder. Most of the supplies are brought from the neighboring provinces.

Coal, copper and lead are said to be plentiful in the island; but the mineral resources have as yet been little developed.

Drying Codfish.

Newfoundland derives its main importance from its fisheries, which are chiefly cod and seal. Nearly the whole population is employed in the catching and curing of fish. The cod fisheries on the Banks of Newfoundland are most important fisheries in the world. These Banks, as the they are called, are elevated plateaus of the ocean-bed, rising far above the average level of the bottom of the Atlantic. The Great Bank, situated to the east and south of the island, extends about 600 miles in length and 200 in breadth. The depth of water on these Banks varies from 150 to over 500 feet, and forms the favorite feeding-ground of the cod-fish. Besides the British, the French and Americans carry on the fishery, almost to the same extent, the French having also the privilege of fishing on certain parts of the coast of the island. The seal fishery* is carried on chiefly on the coast of Labrador, and on the northern coast of Newfoundland.

The annual value of the **exports** of Newfoundland, consisting chiefly of fish, is about 16,000,000 dollars. The imports are about 16,500,000 dollars, and the annual revenue about 2,000,000 dollars. The chief markets for fish are Great Britain, Spain, Portugal, Brazil, and the West Indies.

The **form of government** is the same as in the Canadian provinces, consisting of a Governor appointed by the Crown, an Executive Council of 7 members, a Legislative Council of 15 members, and a Legislative Assembly of 36 members, elected by the people. Responsible government was granted in 1855. The population is nearly equally divided between Protestants and Roman Catholics.

St. John's (29,000), the capital, possesses a fine harbor, almost surrounded by hills. It is the chief commercial station on the island, and is the nearest port to Europe, being only 1,620 miles distant from Ireland. The city was formerly built of wood, but having been several times nearly destroyed by fire, the lower part is now built of brick. The great fire of 1844 destroyed 4,000,000 dollars worth of property. A similar disastrous fire occurred in 1892. On this occasion the fine old cathedral was destroyed.

Harbor Grace (7,000), *Carbonear* (3,700), *Twillingate* (3,700), and *Bonavista* (3,500), are the next most important towns. *Port de Grave, Brigus, Trinity,* and *Greenspond* are also rising towns.

The islands of *St. Pierre, Langley,* and *Miquelon*, lying to the south of Newfoundland, belong to France, and are important fishing stations. They are the only portions now remaining to the French of their once large possessions in North America.

* The pupil may note that although, according to popular phraseology, we speak of the "whale fishery" and the "seal fishery," the whale and seal are not fish. Members of the class, with the assistance of the teacher, may discuss this profitably

THE ARCTIC REGIONS.

The **Arctic Regions** extend from Davis Strait on the east to Behring Strait on the west, along the shores and in the waters of the Arctic Ocean. They comprise numerous islands, peninsulas, gulfs, bays, sounds, and straits, and are chiefly interesting as having been the scene of numerous brave and determined attempts to find a highway to the west by means of the Arctic Ocean. No practical benefit has resulted from these expeditions, as the seas are sometimes ice-bound for years, or blocked up by enormous icebergs. That a passage does exist was definitely discovered by M'Clure in 1850-51, when he found that Barrow and Banks (or M'Clure) Straits unite in Melville Sound. The Arctic Ocean is much more open on the west than on the east, and from Banks Strait navigation is uninterrupted by islands as far as Behring Strait; but the sea is almost constantly filled with ice.

The most important expeditions have been sent out by the British Government during this century; several have also been fitted out by the Government of the United States. The most interesting, as it was the most unfortunate expedition, was that of Sir John Franklin, which sailed in 1845, and the fate of which was long unknown. No less than twenty-seven expeditions were sent out in search of him, with but little success, until 1854, when the remains of several of the explorers and articles belonging to his expedition were discovered by Dr. Rae in King William Land, and some years later further remains were found by Captain M'Clintock and others, proving conclusively that the whole party had miserably perished.

Killing Seals.

Arctic Scenery.

Although attempts are no longer made to pass round the continent through the Arctic Ocean, some men seem yet determined to reach the North Pole for certain scientific purposes. For many years the belief existed in a great open sea surrounding the pole, but recent explorations have dispelled this theory.

On the Coppermine and Back or Great Fish Rivers, extensive beds of coal have been found; but they are not likely to be worked until those of more temperate latitudes are exhausted.

The Capitol, Washington.

UNITED STATES.

Area, including Alaska, 3,501,410 square miles; population, nearly 63,000,000; persons to square mile, nearly 18; greatest extent from north to south, 1,600 miles; and from east to west, 2,700 miles; about the same size as British North America.

The **United States** of America are bounded on the north with the exception of the Territory of Alaska, which lies to the north-west of British Columbia—by the Dominion of Canada; on the west by the Pacific Ocean; on the south by Mexico and the Gulf of Mexico; and on the east by the Atlantic Ocean.

They comprise forty-four States, one federal district, and six territories, united under one central government.

Two great **mountain chains**, the **Rocky Mountains** on the west, and the **Alleghany Mountains** or Appalachian chain on the east, divide the country into three regions: the Atlantic slope from the Alleghanies to the Atlantic Ocean; the Great Central Plain, or valley of the Mississippi; and the vast plain or plateau between the Rocky Mountains and the Pacific coast.

The **Rocky Mountains** form the principal chain, extending from near the Arctic Circle to the Cordilleras of Mexico. They cover an area 40 to 200 miles in breadth. Their highest summits in the United States are *Uncompaghre Peak* (14,510 feet), *Blanco Peak* (14,464 feet), and *Long's Peak* (14,271 feet), all in Colorado. Along the Pacific coast are several chains of mountains, some peaks of which rise even higher than any of the Rocky Mountains. These are: the *Coast Range* and the parallel range of the *Sierra Nevada*, enclosing Sacramento Valley, the gold region of California; and the *Cascade Range*, in Washington and Oregon, extending through British Columbia into Alaska. The highest summits in the Sierra Nevada are *Mount Shasta* (14,440 feet), and *Mount Whitney* (14,898 feet), both in California; and the highest in the Cascade range are *Mount Jefferson* (15,500 feet), in Oregon, and *Mount St. Helen's* (15,750 feet), in Washington, the last-named being the loftiest summit in the United States.

The **Alleghany Mountains** extend from the peninsula of Gaspé, in Canada, to the north of Alabama, and are known by different names in the various States which they traverse. The highest peaks are in the *White Mountains;* but they seldom exceed 5,000 feet, and are generally not more than 3,000 feet in height.

The United States are particularly noted for their numerous and important **rivers**; and no country in the world possesses such an extent of water communication. The estimated length of the navigable rivers is more than 47,000 miles.

PACIFIC
MOUNTAIN
"STANDARD
UNITED STATES
SCALE OF MILES
0 50 100 150 200 250 300
COMPARATIVE LATITUDE
Longitude West from Greenwich
PACIFIC OCEAN
ARCTIC OCEAN
BERING SEA
WASHINGTON TY.
OREGON
IDAHO TY.
MONTANA TY.
DAKOTA TY.
WYOMING
NEBRASKA
COLORADO
KANSAS
UTAH TY.
NEVADA
CALIFORNIA
ARIZONA TY.
NEW MEXICO TY.
INDIAN TERR.
TEXAS
DOMINION
Mt. Baker
Mt. Olympus
Mt. Rainier
Mt. Adams
Mt. Hood
Mt. Jefferson
Mt. Whitney
Mt. San Bernardino
Mt. Wrangel
Mt. St. Elias
Fremont's Peak (13,570 ft.)
Mt. Holy Cross (14,400 ft.)
Pikes Peak (14,216 ft.)
Spanish Peaks
Union Peak
Laramie Peak
Long's Peak
Wood Mt.
Lake Manitoba
Boundary Pass
Port Townsend
Victoria
Vancouver I.
Str. of Juan de Fuca
Seattle
Olympia
Portland
Astoria
Columbia R.
Willamette R.
C. Lookout
C. Foulweather
C. Blanco
Port Orford
C. Mendocino
Pt. Arena
Pt. Conception
Eugene City
Umpqua R.
Roseburg
Jacksonville
Klamath R.
Klamath L.
Albany
Salem
Oregon City
Dalles
Wallula
Walla Walla
Lewiston
Pierre City
Flathead L.
Kootenai R.
Pend d'Oreille L.
Ft. Benton
Great Falls of the Missouri
Milk R.
Marias R.
Missouri R.
Ft. Buford
Pembina
Devil L.
Souris R.
Helena
Gallatin
Bozeman
Bannock City
Virginia
Big Horn R.
Powder R.
Yellowstone R.
Yellowstone Park
Yellowstone Lake
Big Horn Mts.
Bismarck
Lt. Missouri R.
Missouri R.
Deadwood
Black Hills
Ft. Pierre
Cheyenne R.
White R.
Ft. Randall
Yankton
Niobrara R.
Ft. Laramie
Platte R.
Ft. Fetterman
Laramie
Cheyenne
Julesburg
Kearney
Greeley
Denver
Central City
Golden
Leadville
Colorado Springs
Pueblo
Las Animas
Dodge City
Wichita
Junction City
Republican Fk.
Smoky Hill Fk.
Solomon's Fork
Platte R.
South Fork
Sweetwater Mts.
South Pass City
Ft. Bridger
Evanston
Uinta Mts.
Great Salt Lake
Salt Lake City
Utah Lake
Provo
Salt Creek
Ogden
Corinne
Ft. Hall
Malade City
Idaho City
Boise City
Pioneerville
Silver City
Owyhee R.
Snake or Lewis R.
Humboldt R.
Lower Carson L.
Virginia
Gold Hill
Carson
Genoa
Austin
Eureka
Hamilton
Pioche
Parowan
Sevier L.
Fillmore
Manti
Grass Valley
Marysville
Napa City
Yallejo
San Francisco
To Australia
San Jose
Oakland
Stockton
Sacramento
Aurora
Yosemite Valley
Monterey Bay
Monterey
Tulare L.
Owens L.
Mohave City
Santa Barbara
Los Angeles
Santa Barbara Islands
San Diego
La Paz
Ehrenberg
Colorado R.
Gila R.
Gila City
Yuma
Prescott
Santa Fe
Las Vegas
Albuquerque
Ft. Bascom
Ft. Sumner
Socorro
Ft. Stanton
Silver City
Mesilla
Tucson
Tubac
El Paso
Rio Grande
Ft. Davis
Presidio del Norte
San Vicente
Fredericksburg
New Braunfels
San Antonio
Austin
Corpus Christi
Rio Grande City
Llano Estacado or Staked Plain
Public Land
Canadian R.
N. Fk. of Canadian R.
Red R.
Colorado R.
Grand Canon
Little Colorado R.
Rio Colorado
Gulf of California
Lisburne
C. Barrow
Nuwuk
Nig-a-lek
Nawnak
Kinjingrua
Kowak R.
Yukon R.
Kuskokwim R.
Behring Str.
St. Lawrence I.
Kowak
Mahlemut
Ohmeechak
Ohlotchka
Reasonable Village
Alaskan Mts.
C. Dyer
C. Newenham
C. Douglass
Numivak I.
Kodiak I.
Sitka
Bitka I.
Aleutian Is.
Canada Pub. Co., Toronto

CENTRAL
EASTERN
MERIDIANS
95
90
85
80
75
70
Lake Nipigon
ISLE ROYALE
LAKE SUPERIOR
Keweenaw Pt.
Marquette
L'Anse
Ishpeming
Duluth
Mackinaw
L. Michigan
Green Bay
Milwaukee
Chicago
ST. PAUL
Minneapolis
Rochester
Winona
La Crosse
Oshkosh
Fond du Lac
Waterloo
Mason City
MADISON
Janesville
Racine
Rockford
Dubuque
Galena
Aurora
Joliet
Ft. Dodge
DES MOINES
Iowa City
Muscatine
Burlington
Council Bluffs
Plattsmouth
Ottumwa
Galesburg
Peoria
Bloomington
Keokuk
Quincy
Macon
Terre Haute
Springfield
Lafayette
Jacksonville
St. Joseph
Hannibal
Missouri R.
Kansas City
St. Charles
St. Louis
TOPEKA
Sedalia
JEFFERSON CITY
Hanover
Vincennes
Evansville
Indianapolis
Richmond
Dayton
Cincinnati
Ports-mouth
Ohio R.
Coviington
Maysville
New Albany
Louisville
FRANKFORT
Lexington
Springfield
COLUMBUS
Zanesville
Parkersburg
Ironton
Huntington
Ashland
Pilot Knob
Cape Girardeau
Cairo
Paducah
Henderson
Owensboro
Green R.
Glasgow
Clarksville
Cumberland
Knoxville
Smoky Mts.
Asheville
Black Mts.
Charlotte
Fayetteville
Cape Fear R.
Wilmington
C. Lookout
Greensboro
RALEIGH
Roano
Edenton
Albemarle Sound
C. Hatteras
Peaks of Otter
Lynch-burg
Petersburg
Portsmouth
Norfolk
C. Henry
C. Charles
RICHMOND
Potomac R.
Washington
ANN-APOLIS
Delaware Bay
C. May
C. Henlopen
Philadelphia
Wilmington
DOVER
TRENTON
Harrisburg
Lancaster
Pittsburgh
Wheeling
Allegheny
Cleveland
Akron
Toledo
Sandusky
Tiffin
Ft. Wayne
Logansport
Lafayette
Springfield

The **Mississippi** rises in Lake Itasca, in Minnesota, near Lake Superior, and receives as affluents the *Wisconsin*, *Illinois*, and *Ohio* (with its affluents, the *Cumberland* and *Tennessee Rivers*), on the east bank; the *Missouri* (with its affluent, the *Platte*), the *Arkansas* and *Red Rivers*, on the west bank; and it flows into the Gulf of Mexico by a number of mouths, after a course of 3,160 miles. The course of the

A CREVASSE ON THE MISSISSIPPI RIVER.

Missouri is even longer than that of the Mississippi, being about 3,000 miles before joining the latter, or about 4,300 miles in all, thus forming the longest river in the world. All these rivers are navigable throughout the greater part of their courses, either by steamboats (for the great size and light draught of which the Mississippi is famous) or by flat-boats, which bring the produce of the Northern and Western States down to New Orleans.

The *Brazos*, *Colorado* (in Texas), and *Rio Grande del Norte*, the latter forming the boundary between the United States and Mexico, flow into the Gulf of Mexico west of the Mississippi; and the *Alabama* and several other rivers reach the Gulf east of it.

The *Penobscot*, *Connecticut*, *Hudson*, *Delaware*, *Susquehanna*, *Potomac*, *James*, *Roanoke*, and *Savannah*, together with numerous smaller and less important rivers, flow into the Atlantic.

The *Colorado* (rising as the Green River in Wyoming) flows into the Gulf of California; the *Sacramento* and *Columbia Rivers* flow into the Pacific Ocean.

The Great Lakes of Canada all adjoin the United States, *Lake Michigan* being entirely within the latter territory; besides these are *Lakes Champlain* and *George*, many smaller lakes in New York, Minnesota, and other States, and the *Great Salt Lake* in Utah.

The **coast-line** of the United States is very little broken, but along the Atlantic coast are numerous small islands and sand-banks—*Long Island*, *Rhode Island*, and *Nantucket* being the principal.

The bays are chiefly the mouths of the rivers.

The principal Bays, Straits, etc., are:

On the east coast, *Penobscot* and *Massachusetts Bays*, *Long Island Sound*, *Delaware* and *Chesapeake Bays*, *Pimlico* and *Albemarle Sounds*, *Strait of Florida*, *Appalachee Bay*, and *Galveston* and *Matagorda Bays*.

On the west coast are *San Francisco* and *Columbia Bays*, *Juan de Fuca Strait*, and *Admiralty Inlet*.

The principal Capes are:

On the east coast, *Ann*, *Cod*, *Montauk Point*, *May*, *Charles*, *Henry*, *Hatteras*, *Sable*, and *St. Blas*.

On the west coast are *Point Conception*, *Mendocino*, *Blanco*, and *Flattery*.

As the territory occupied by the United States extends over 24° of latitude, or a distance of about 1,600 miles from north to south, the **climate** varies very much with the locality. It is temperate in the North and hot in the South. Along the south-eastern coast are numerous large swamps, and the rivers are sluggish in their courses, rendering the climate very unhealthy for the white population. In the interior it is hot, but more healthy. On the Pacific coast, owing to their proximity to the sea, the mountains intercept the rain-clouds, and the country to the east of the Coast Range suffers very much from drouth.

The **soil** is in general productive, especially in the Great Central Plain, or Mississippi Valley. In the north-eastern States it is more rocky and barren, but everywhere well cultivated. On both sides of the Rocky Mountains, but more especially on the high plateau between that range and California, are arid tracts of country, requiring irrigation to be made productive. In the Great Central Plain almost all the country west of the Ohio River consists of vast prairies, originally covered with tall grass, and easily cultivated, but with little timber. In the Northern and Western States, grain is the chief production—principally wheat and Indian corn. Cattle are also extensively reared. In the Middle States, tobacco and Indian corn are the staples; and in the Southern States, cotton, sugar, and rice.

Gold, silver, iron, copper, lead, quicksilver, and coal are found in great abundance; gold, silver, and quicksilver chiefly in California, Montana, Wyoming, and Nevada; iron, coal, and petroleum in the western parts of Pennsylvania, in Virginia, and also in Ohio; and copper and lead in Illinois, Michigan, Missouri, and Wisconsin. Minnesota and Michigan also yield iron abundantly.

The Western States so called, or those occupying the northern part of the Great Central Plain, are the chief sources of the supplies of the South and East; the Mississippi forming the great channel of communication for the exchange of the grain and cattle of the North, and for the sugar, cotton, and other products of the South; while the Great Lakes, the River St. Lawrence, and the Erie Canal form highways to the East.

The United States have been peopled principally by settlers from Great Britain and Ireland, and from Germany,

although the native-born population, descended from the earlier settlers, now largely predominates.

The **form of government** is a Federal Republic.

Each State is a separate commonwealth, and makes its own laws; each possesses exclusive control of all local interests, and is governed by a Governor, Senate, and a House of Representatives, all elected by the people.

The **General Government** regulates all affairs relating to commerce, the defence and general interests of the country. It consists of a President, Vice-President, and a Congress consisting of a Senate of 88 members and a House of Representatives of 356 members.

The **President** and **Vice-President** are chosen every four years by electors representing the people, each State being entitled to as many electors as it has Senators and Members of Congress.

The **Senate** is composed of two members from each State, who are chosen by its Legislature for a term of six years.

The **representatives** of the people are elected every two years, each State being entitled to one member for every 173,900 of its inhabitants.

The **Territories** of the United States are under the direct control of the General Government until they have a sufficiently large population to entitle them to representation in Congress. They are then formed into States, and are entitled to the privileges enjoyed by States.

The United States were formerly British Colonies, and in order to avoid the taxation which Britain wished to impose on them, declared their independence in 1776, and after some years of war were finally acknowledged independent by Great Britain in 1783. They then consisted of thirteen States—New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North and South Carolinas, and Georgia. The population at this period only amounted to 3,000,000.

Until 1862 negro slavery existed in all the Southern States of the Union, and was the cause of constant dissensions between them and the free States of the North and West. These dissensions culminated in a prolonged and bloody war, which lasted from the election of President Lincoln, early in 1861, until near the end of his four years' term of office, in 1865. The result was the entire overthrow of the slave-holding power of the South, and the securing to the black population of their personal freedom, and all the other rights and privileges accorded to their white fellow-citizens.

Canyon of Colorado (Western).

The United States present the most remarkable example of national progress and of successful enterprise of any country in the world. Although little more than a century old, their foreign exports now amount to 875,000,000 dollars, their imports to 845,000,000 dollars, and their shipping to close upon 5,000,000 tons. The national debt increased largely during the civil war, but it is being rapidly paid off. It now amounts to about 1,610,000,000 dollars, besides the debts contracted by the separate States. The annual revenue is about 433,000,000 dollars.

There is no country in the world, with the exception of Great Britain, which possesses such a complete network of railways and canals.

There is no established religion in the United States, every denomination possessing equal privileges. Education, especially in the Northern and Western States, is generously aided, under the management of the different State Governments.

Each State is divided into counties, as in the British provinces.

The States are usually classed under the heads of Eastern, Middle, Southern, and Western.

EASTERN STATES.

The **Eastern States**, or New England, as they are sometimes called, comprise:

States.	*Chief Towns.*
Maine	Augusta, Portland, Bangor.
New Hampshire	Concord, Manchester, Portsmouth.
Vermont	Montpelier, Middlebury, Burlington.
Massachusetts	Boston, Worcester, Lowell, Fall River, Springfield.
Rhode Island	Providence, Newport.
Connecticut	Hartford, Newhaven, Bridgeport.

The New England States occupy the north-eastern portion of the United States, adjoining Canada. The country is mountainous, and intersected by numerous lakes and rivers. The Appalachian chain extends through the northern part of the country, under the name of the *Green Mountains* in Vermont, and the *White Mountains* in New Hampshire and Maine; the latter are so called from a few of their summits being covered with snow for a great part of the year. The *Connecticut River* runs from north to south, between and through four of the States, into Long Island Sound.

The **coast-line** is much broken, being indented by numerous bays and harbors, with many small islands. The coast is rocky, and dangerous for navigation.

The **climate** resembles that of Ontario, but is rather colder in Maine. The **soil** is in general rocky, and not well adapted for agriculture; but in Vermont, particularly, it is favorable for pasture.

The New England States are especially noted as being the principal manufacturing districts of the country. They were originally settled by the "Pilgrim Fathers," or "Puritans"—religious refugees who left England during the reigns of James I. and Charles I.

Maine possesses fine harbors. The principal trade is in lumber and the fisheries. Lumbering is carried on extensively in the northern part, chiefly on the St. John River and its tributaries, and on the Penobscot.

Augusta (10,500), the capital, is situated on the Kennebec River. *Portland* (36,500), the largest and most important town, has a fine harbor, and is much resorted to for sea-bathing. The Grand Trunk Railway of Canada has its eastern terminus at Portland. *Bangor* (19,100) is the second important town in Maine, and carries on a large lumber trade.

New Hampshire is very mountainous, and is famed for its beautiful scenery. It possesses very little sea-coast. The principal occupations of the inhabitants are agriculture and the rearing of cattle.

Concord (17,000) is the capital. *Portsmouth* (10,000) possesses a fine harbor and navy yard, and carries on extensive fisheries. *Manchester* (44,000), *Dover* (12,800), and *Nashua* (19,400) are manufacturing towns.

Vermont is an inland State, intersected by the Green Mountains, which afford excellent and abundant pasture to large herds of cattle. Between Vermont and New York States lies *Lake Champlain*, which, with *Lake George*, is celebrated for its fine scenery, and for having been the scene of many battles between the French and British in early colonial days.

Montpelier (4,000) is the capital. *Middlebury* and *Burlington* (14,600) possess colleges.

Massachusetts is the richest and most populous of the Eastern States, and the most important State in the Union for manufactures, chiefly consisting of cotton, woollen, and leather goods.

The surface is hilly, and the soil rocky and poor, but it is carefully cultivated.

The coast is very irregular; a semi-circular peninsula, terminated by Cape Cod, extends from the south-east into the Atlantic. The islands of *Nantucket* and *Martha's Vineyard* lie to the south of this peninsula. The State possesses many fine harbors, and carries on the principal trade in the American cod-fishery off the Banks of Newfoundland.

Boston (448,500), the capital, is a handsome city, situated on a peninsula at the head of Massachusetts Bay. Next to New York, it possesses the largest shipping trade of any city in the United States, and carries on extensive manufactures, especially in boots and shoes.

Lowell (77,700), *Springfield* (44,200), *Lynn* (55,750), *Fall River* (74,400), and *Worcester* (84,700), possessing Clark University, are large and important manufacturing towns, producing chiefly cotton and woollen goods and boots and shoes. *Marblehead* is the chief port of the American cod-fishery, and *New Bedford* (26,900) and *Nantucket* for the whale-fishery. *Cambridge* (60,000), near Boston, is the seat of Harvard University. At *Plymouth* (7,300) the "Pilgrim Fathers" made their first landing in 1620.

Rhode Island, so called from the island of that name in Narragansett Bay, is the smallest State in the Union; but, compared with its population, it carries on more extensive manufactures, chiefly woollen and cotton, than any other State.

Its surface is rocky, and the soil is poor, but the latter is industriously cultivated.

Providence (132,200), the capital, is situated at the head of Narragansett Bay, and is the chief centre of the manufactures. *Newport*, on Rhode Island, is a favorite summer resort for sea-bathing.

Connecticut lies to the north of Long Island Sound. The country is hilly, but the soil fertile, especially in the valley of the Connecticut River. It carries on various and extensive manufactures, especially of clocks, cottons, wool-

lens, etc.; but agriculture is the chief occupation of the inhabitants. Education receives more attention than in any of the other States.

Hartford (53,230), the capital, is situated on the Connecticut River. It is a flourishing town, and is surrounded by a fertile country. *New Haven* (81,300) is the seat of Yale College. *New London* (13,750) and *Bridgeport* (48,870) possess good harbors, and a large amount of shipping. *Norwich* (16,156) is an important manufacturing town.

MIDDLE STATES.

The Middle States comprise:

States.	*Chief Towns.*
New York	New York, Albany, Buffalo, and Rochester.
New Jersey	Trenton, Newark, Paterson.
Pennsylvania	Philadelphia, Harrisburg, Pittsburg.
Delaware	Wilmington, Dover.
Maryland	Baltimore, Annapolis, Hagerstown.
District of Columbia	Washington.

The section of the **Alleghany Mountains** locally known as the *Catskills* extends through the eastern part of New York, and through Pennsylvania and Maryland into Virginia. The country is in general hilly both east and west of the Alleghany range, with rich and fertile valleys, and abounds in valuable minerals. The Middle States are watered by the principal rivers of the Atlantic slope: the *Hudson*, *Delaware*, *Susquehanna*, and *Potomac*. All these rivers enter the ocean by broad mouths, forming bays and excellent harbors. The Susquehanna and Potomac flow into Chesapeake Bay. On the west side of the Alleghany Mountains, the *Alleghany* and *Monongahela Rivers* combine to form the *Ohio*. The climate is temperate, though warmer than in the Eastern States, especially in Maryland.

New York is the most important State in the Union, not only in population, but in the extent of its commerce and the character of its public improvements. It is well watered by rivers, and large and extensive canals connect the Great Lakes with the Atlantic seaboard. The principal canal is the *Erie*, which connects Buffalo on Lake Erie with Albany on the Hudson River. Important lines of railway supply communication with all the cities of the West. The soil is rich, and produces vast quantities of wheat, which forms the staple of the State.

The **surface** is much diversified by numerous beautiful lakes, among which are *Cayuga*, *Seneca*, *Canandaigua*, and *Oneida*. *Lake Champlain* lies between New York and Vermont. New York is separated from Ontario by *Lakes Erie* and *Ontario*, and by the *Niagara* and *St. Lawrence Rivers*.

Long and *Staten Islands* are the principal islands of the State on the Atlantic coast.

The **original settlers** were the Dutch, who colonized New York, then called New Amsterdam, and founded settlements on the Hudson River as far north as Albany.

New York (1,515,000), the largest and most important city in the Union, is situated on Manhattan Island, at the junction of Hudson River and East River, a continuation of Long Island Sound. It contains, with Brooklyn and other suburbs situated on the opposite banks of the rivers, about 2,400,000 inhabitants, and is the great centre of trade for the whole of the United States, about two-thirds of the entire foreign commerce passing through the city. New York is rich in public buildings, and it ranks next to London and Paris among the great cities of the world.

Brooklyn (806,500), on Long Island, contains a United States Navy Yard, and is the fourth city in the Union.

Albany (95,000), the capital, is situated on the Hudson River, at the terminus of the Erie and Champlain Canals. It is an old and wealthy city. *Buffalo* (256,000) is situated on Lake Erie, and derives its importance from its extensive trade with the Western States. *Rochester* (134,000) with extensive flour-mills, *Oswego* (22,000), the terminus of the Oswego Canal on Lake Ontario, *Sackett's Harbor*, and *Ogdensburgh* (12,000) carry on extensive trade with Canada and the Western States. *West Point*, on the Hudson River, is the seat of the Military Academy of the United States. *Poughkeepsie* (20,000), and *Troy* (61,000), also on the Hudson River, are towns of some importance. *Utica* (44,000), *Syracuse* (88,150), and *Auburn* (25,900) are centres of fertile districts.

New Jersey is situated on the Atlantic coast, extending from Delaware Bay to the Hudson River, and is separated from Pennsylvania by the Delaware River. Its surface is generally low and somewhat marshy, but its soil is good—fruit and vegetables being raised in immense quantities for the New York and Philadelphia markets. Numerous unimportant islands skirt the coast, but there are no harbors. This State was the scene of many battles during the Revolutionary war.

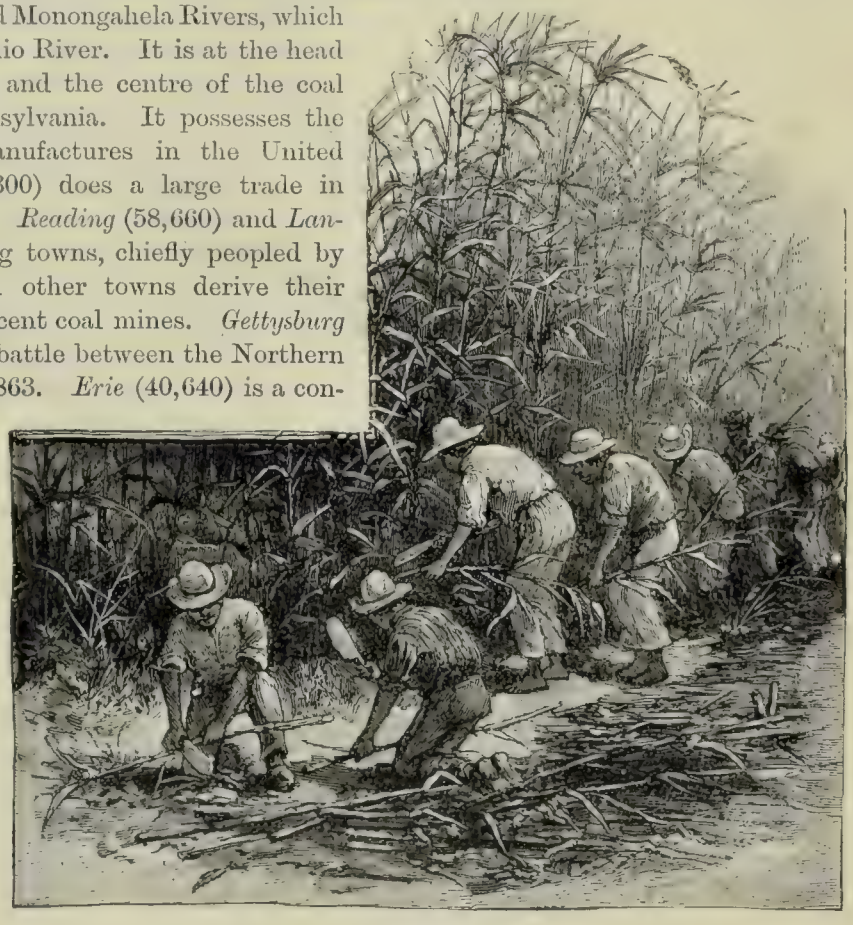
Trenton (57,500), near the lower falls of the Delaware, is the capital. *Newark* (182,000) and *Paterson* (78,400) are important manufacturing towns. *Princeton* contains two colleges. *Jersey City* (163,000) is a suburb of the city of New York.

Pennsylvania is the second State in the Union in respect of population. It is chiefly an inland State, connected with the ocean by Delaware Bay. The Alleghany Mountains intersect it, rendering the surface hilly. The soil is good, especially in the south, which is the most populous part. Wheat is the staple.

Pennsylvania derives its chief importance from its valuable coal and iron mines and petroleum wells. It was originally settled by Quakers, under the direction of William

Penn; a considerable proportion of the inhabitants, however, are of German origin, and still retain their mother tongue.

Philadelphia (1,047,000), the largest city in the State, and third largest in the Union, is built on a flat peninsula between the Delaware and Schuylkill Rivers, and is about 120 miles from the sea. It is the most regularly built city on the continent, all the streets being laid out at right angles. It contains many fine buildings and extensive water-works, and carries on a large shipping and inland trade. *Harrisburg* (39,400), on the Susquehanna, is the capital. *Pittsburg* (238,600) is situated on a peninsula between the Alleghany and Monongahela Rivers, which here join and form the Ohio River. It is at the head of steamboat navigation, and the centre of the coal and iron region of Pennsylvania. It possesses the most important iron manufactures in the United States. *Allegheny* (105,300) does a large trade in coal, iron, and glassware. *Reading* (58,660) and *Lancaster* (32,000) are thriving towns, chiefly peopled by Germans. *Pottsville* and other towns derive their importance from the adjacent coal mines. *Gettysburg* was the scene of a great battle between the Northern and Southern forces in 1863. *Erie* (40,640) is a considerable port on Lake Erie. *Scranton* (75,215) is the centre of a large trade in anthracite coal.



Sugar Cane.

Delaware, situated to the south of Delaware Bay, is a small and unimportant State. Its surface is low and sandy, and its population is chiefly agricultural, but in the northern part manufactures are carried on.

Wilmington (61,430), the largest town, is situated near the mouth of the River Brandywine. It has numerous manufactures and a considerable trade. *Dover*, near the middle of the State, is the capital.

Maryland is the most northerly of the former Slave States. In soil and surface it resembles Pennsylvania, but the climate is warmer. Tobacco is its staple. Iron and coal are found in the west.

Baltimore (434,500), the largest city in Maryland, is situated on the Patapsco River, 14 miles from Chesapeake Bay. It is well built, and possesses some fine monuments. It is the commercial emporium for a large part of the western trade. *Fort McHenry* is at the mouth of the harbor. *Annapolis*, a small town on an arm of Chesapeake Bay, is the capital. *Frederick*, *Hagerstown*, and *Cumberland* are also important centres for local trade.

The **District of Columbia** is the seat of the United States Government, and is under its direct control. It was originally ten miles square, extending on both sides of the Potomac, but the part in Virginia was given back to that State, and the district is now confined to the Maryland side of the river. The inhabitants have no representation in Congress.

Washington (230,400), the capital of the United States and the seat of the Federal Government, is situated on the Potomac River, about 110 miles from its mouth, and contains the finest public buildings in the United States, viz., the Capitol, Treasury, Patent Office, Post Office, Army and Navy Buildings, Department of Agriculture, Naval Observatory, and Smithsonian Institution, containing the National Museum, and founded by an English gentleman named Smithson. The President, during his term of office, resides at the White House, the official residence of the head of the nation. The city occupies a large space of ground. It derives its importance from being the seat of government.

SOUTHERN STATES.

The Southern States comprise:

States.	*Chief Towns.*
Virginia	Richmond, Norfolk, Petersburg.
West Virginia	Wheeling, Charleston.
North Carolina	Raleigh, Newbern, Wilmington.
South Carolina	Columbia, Charleston, Beaufort.
Georgia	Atlanta, Savannah, Augusta.
Florida	Tallahassee, Pensacola.
Alabama	Montgomery, Mobile.
Mississippi	Jackson, Natchez, Vicksburg.
Louisiana	New Orleans, Baton Rouge.
Texas	Austin, Galveston, Houston.

States.	*Chief Towns.*
Tennessee	Nashville, Memphis, Knoxville.
Kentucky	Frankfort, Louisville, Lexington.
Arkansas	Little Rock, Laredo, Hot Springs.

These, together with Maryland and Missouri, were formerly Slave States; all of which, except Kentucky and Maryland, seceded from the Union in 1861. A frightful civil war then ensued, which lasted for nearly four years, when they were forced back into the Union, and slavery was abolished. After a period of probation, their right to representation in Congress was restored to them.

Sugar Cane.

The country occupied by these States is intersected in the north by the **Alleghany Mountains**, forming two parallel chains, called the *Cumberland Mountains* in Kentucky and Tennessee, and the *Blue Ridge* in Virginia. They extend to the northern part of Alabama. In the interior the surface is hilly, but along the coast it is low and flat, forming vast and unhealthy swamps, as the *Dismal Swamp* in Virginia, the *Great Pedee Swamp* in South Carolina, and the *Everglades* in Florida. The rivers to the east of the Alleghanies are of little commercial importance. In the West the important rivers are the *Ohio*, with its tributaries the *Cumberland* and *Tennessee*, flowing into the *Mississippi;* and the *Alabama River*, flowing into the Gulf of Mexico.

The **coast-line** is not so broken as in the north, but numerous sand-banks and small islands line the coast. The peninsula of **Florida**, terminated by *Cape Sable*, juts out in a remarkable manner, as if originally joined to South America by means of the West India Islands. The climate is hot, and in the most southerly States very unhealthy, so that few white people can live on the plantations in summer. Almost all the labor is carried on by negroes. The soil is rich and productive; cotton, rice, sugar, tobacco, and Indian corn being the staples. Gold is found in small quantities in North Carolina and Georgia.

Virginia is one of the oldest States in the Union, and the birthplace of many of the most celebrated men of the United States. It possesses an extremely rich soil, which, however, has been much exhausted by careless cultivation. Tobacco is the great staple, and wheat and cattle are also extensively raised. It is celebrated for its picturesque scenery and natural wonders, such as the Natural Bridge. It was the scene of severe engagements in the late civil war, and was devastated by the troops of the North and South, until the eastern section of the State became almost a desert.

The western part of **Virginia**, having owned the authority of the Federal Government, was in 1862 formed into a separate State, as **West Virginia.** *Wheeling* (35,000), on the Ohio, is a large manufacturing town, and the capital of West Virginia. Charleston was formerly the capital.

Richmond (81,400), the capital of Virginia, is situated on the James River, and carries on the principal trade. It was the capital and army headquarters of the Confederate States, and many bloody and obstinate battles were fought near it. *Norfolk* (35,000) possesses a fine harbor, and is the chief seaport. At *Portsmouth* (13,300), opposite Norfolk, is the United States Navy Yard and Naval Hospital. *Petersburg* (22,700) is the chief centre of the tobacco trade. *Fredericksburg, Harper's Ferry*, and other places became famous during the war.

Tobacco Plant.

North Carolina is densely covered with pine woods, and exports large quantities of tar and turpentine. Grain and cattle are raised in the western part of the State. Its coast is almost enclosed by low sandy islands. Cape Hatteras is one of the most dangerous points on the Atlantic coast.

Raleigh (12,700), a small town near the centre of the State, is the capital. *Newbern* and *Wilmington* (20,000) are the chief seaports.

South Carolina is an important and wealthy State, and was the first to secede from the Union. The soil is very fertile. The numerous islands along the coast produce the best cotton, called sea-island cotton. Rice is the staple product of the lowlands, and cotton of the interior.

Charleston (55,000) is the largest city, and before the war was almost the only one on the eastern coast of the Southern States possessing direct trade with Europe. It is an elegantly built city, and carries on a large trade in cotton and rice. *Columbia*, near the centre of the State, is the capital. *Georgetown* and *Beaufort* have a large trade.

Georgia is one of the largest and most populous of the Southern States, producing vast quantities of cotton, rice, and wheat.

Savannah (43,200) is situated on a river of the same name.

17 miles from its mouth, and carries on the principal trade of the State. *Atlanta* (65,533) is the capital. *Augusta* (33,300) and *Macon* (22,750) are important towns with a large local trade. *Columbus* (17,300) is the seat of cotton manufacture.

Florida was formerly in the possession of Spain, but was ceded to the United States in 1820, and became a separate State in 1845. The country is low and flat, but vegetation is most luxuriant. The coast-line, although extending 1,200 miles, possesses few harbors, and is the scene of many wrecks. The coral reefs on the south, called the Florida Keys, are especially dangerous, owing to the rapid current of the Gulf Stream.

Pensacola (11,750), on the Gulf of Mexico, has a fine harbor, and a United States Navy Yard. *Tallahassee* is the capital. *Appalachicola*, at the mouth of the river of the same name, is a rising commercial city of the State. *Carabelle* (4,000) is a prosperous port on Appalachicola Bay. *St. Augustine* is a favorite resort for invalids, on account of its delightful climate. *Key West* (20,000), one of the Florida Keys, has a fine harbor.

Alabama is watered by several important rivers—the *Alabama*, *Tombigbee*, and other streams—and produces vast quantities of cotton.

Mobile (31,000), the largest city, is situated at the mouth of the Mobile River, and carries on a large trade in cotton, which is conveyed down the rivers from the interior, and from the adjoining States. *Montgomery* (22,000), near the centre, is the capital, and was for a short time the capital of the Confederate States. *Tuscaloosa* and *Huntsville* are also important towns.

Mississippi is the principal cotton State, and extends along the east bank of the Mississippi River. *Jackson* (6,000) is the capital; *Natchez* (10,000) and *Vicksburg* (13,370) carry on the principal trade of the State. The latter is noted for the long siege it withstood in 1863.

Louisiana is the principal State for the production of sugar. Cotton is also extensively grown in the northern part of the State. The country is very flat on both sides of the Mississippi. To protect the land from being inundated, the river is kept between vast dykes or *levées*, as they are called, which extend for about 300 miles above New Orleans.

Louisiana formerly belonged to France, but was purchased by the United States in 1803, along with the vast territory extending from the Mississippi, north-west to the Pacific, for 15,000,000 dollars. The French language is still used to some extent, and the laws are published both in French and English.

Picking Cotton.

New Orleans (242,000), the capital, and the largest city in the South, is situated on the Mississippi River, about 100 miles from its mouth. All the commerce of that great river and its tributaries centres at New Orleans, and the number of steamboats and flatboats crowding its *levée* is enormous. It carries on a large foreign shipping trade, and has a considerable population, composed of French and Spanish creoles. *Baton Rouge* (10,500), formerly the capital, and *Alexandria* are important centres of trade.

Texas is the largest State in the Union. Previous to 1837 it belonged to Mexico, but was conquered by the United States in 1845 and 1846, and ceded to the latter in 1848. The surface of the country is a rolling prairie, intersected by numerous rivers, and separated from Mexico by the Rio Grande del Norte. The *Brazos* and *Colorado* are the principal rivers. The products of the State are sugar, cotton, and Indian corn. Vast herds of wild cattle and horses roam over the prairies. *Austin* (14,500), the capital, is situated on the *Colorado*. *Galveston* (29,000) is the chief seaport, and *Houston* (27,560) the former capital. *Matagorda* and *San Antonio de Bexar* are important towns.

Arkansas, a rapidly growing State, lies to the north of Louisiana, and west of the Mississippi River. Cotton is the chief product. It is intersected by the Arkansas and other rivers. *Little Rock* (26,000) is the capital of the State. *Laredo* and *Hot Springs* are prosperous towns. The latter is a health resort.

Tennessee and **Kentucky** are the great centres for the production of Indian corn and tobacco; Tennessee has also valuable iron mines. Cattle are reared in vast numbers. The surface is mountainous or undulating, well watered by large and navigable rivers. The soil is very productive.

Nashville (76,200), the capital of Tennessee, is situated on the Cumberland River. *Memphis* (64,500), on the Mississippi, and *Knoxville* (22,500) are important commercial towns.

Frankfort, a small town, is the capital of Kentucky. *Louisville* (161,200), on the Ohio, is the largest city, with important manufactures and extensive trade. *Covington* (37,320) is the second largest city in Kentucky. *Lexington* is the centre of a large and fertile district.

Rice Field and Southern Swamp.

WESTERN STATES.

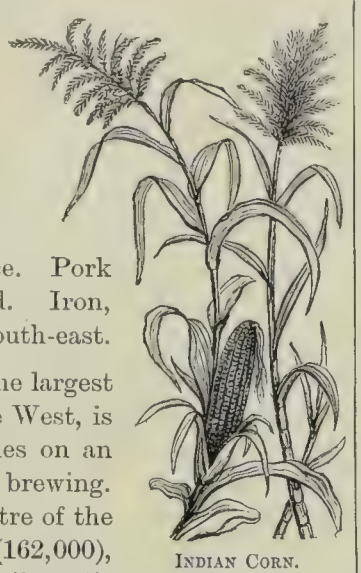
The Western States Comprise:

States.	*Chief Towns.*
Ohio	Cincinnati, Columbus, Cleveland, Toledo.
Michigan	Detroit, Lansing, Grand Rapids.
Indiana	Indianapolis, Madison, Terre Haute.
Illinois	Springfield, Chicago, Alton.
Wisconsin	Milwaukee, Madison, Green Bay.
N. Dakota	Bismarck, Fargo.
S. Dakota	Pierre, Yankton, Sioux Falls.
Montana	Helena, Virginia, and Fort Benton.
Wyoming	Cheyenne, Laramie.
Idaho	Boisé, Florence.
Minnesota	St. Paul, Minneapolis.
Iowa	Des Moines, Davenport, Burlington, Dubuque.
Missouri	St. Louis, Jefferson.
Kansas	Topeka, Leavenworth.
California	San Francisco, Sacramento, Los Angeles.
Washington	Olympia, Tacoma, Seattle, Whatcom.
Oregon	Salem, Portland, Oregon City.
Nebraska	Lincoln, Omaha.
Nevada	Carson City, Virginia City.
Colorado	Denver, Pueblo.

The term **Western States** is generally applied to those lying west of the Ohio and Mississippi Rivers. In many of those that lie between the Rocky Mountains and the Mississippi, the surface of the country is in general composed of vast prairies, sometimes gently undulating, and thus called rolling prairies. They are principally covered with tall, rank grass, forests only occurring in a few places between the Rocky Mountains and the chain of the Pacific. These prairies are admirably adapted for agriculture and pasturage, requiring but little labor to raise wheat, Indian corn, and other grains, in vast abundance. They are, however, in many places, marshy and unhealthy, especially in the neighborhood of rivers, the slope of the country being too slight to carry off rapidly the superabundant moisture. South of the Missouri the country is more hilly and wooded. These States comprise the greater portion of the vast plain drained by the Mississippi and its tributaries. They are rich in minerals; gold, iron, lead,

Branch of the Cotton Plant.

copper, and salt being found in great abundance. They have been chiefly peopled by settlers from the Eastern States, Great Britain, and Germany.


INDIAN CORN.

Ohio is the most important of the Western States in regard to population and commerce. In the western section the prairies commence, but in the east it is well wooded. The soil is fertile, producing wheat and Indian corn in great abundance. Pork and wool are largely exported. Iron, coal, and salt are found in the south-east.

Cincinnati (297,000), one of the largest and most important cities in the West, is situated on the Ohio. It carries on an extensive trade in pork and brewing. *Columbus* (88,200), near the centre of the State, is the capital. *Cleveland* (162,000), *Sandusky* (18,500), and *Toledo* (81,500), on Lake Erie, have a large shipping and inland trade. *Dayton* (61,200), *Marietta* (8,300), and *Portsmouth* (12,400) are important towns.

Michigan possesses the largest extent of lake-coast of any State in the Union, being washed by *Lakes Superior*, *Michigan*, *Huron*, and *Erie*. Lake Michigan is entirely within the United States. It is connected with Lake Huron by the Straits of Mackinaw, both shores of which are in Michigan. The soil is fertile, wheat being the staple. Lumbering is extensively carried on, and on the shores of Lake Superior copper is found in great quantities.

Detroit (206,000), on the Detroit River, opposite Windsor, in Ontario, is the principal city, possessing an extensive lake commerce. *Lansing* is the capital. *Grand Rapids* (60,300), *Monroe*, *Saginaw*, and *Kalamazoo* (18,000) are important towns, with a large local trade. *Ann Arbor* (9,500) is the seat of a university.

Indiana, Illinois, Iowa, Wisconsin, and **Minnesota** all present the same general physical features, and resemble each other in their soil and productions. They are composed chiefly of vast prairies (Minnesota and Wisconsin being the only States which are at all wooded), and are watered by the Mississippi and its tributaries. The climate is dry, and warmer than in Canada, even in those States which are in the same latitude. The principal products are wheat and Indian corn, though vast quantities of cattle are reared for the eastern markets. Iowa and Wisconsin have valuable lead mines. These are comparatively new States, and are remarkable for the rapidity with which they have been settled and brought under cultivation.

The chief towns in Indiana—*Indianapolis* (105,500), the capital; *Terre Haute* (30,200), *Evansville*, *Madison*, and *New Albany*—are important centres of trade.

In Illinois, *Chicago* (1,100,000), on Lake Michigan, is the largest city. It has been built chiefly since 1830, and has risen with unparalleled rapidity into a large and elegant city. It carries on an extensive commerce on the lakes, and is the great centre of the grain-growing States. In October, 1871, it was devastated by a fire which destroyed one-half of the city, with enormous loss of property, but it has since been rebuilt and remarkably improved. The World's Fair, celebrating the 400th anniversary of the discovery of America, was held here in 1893. *Springfield* (25,000) is the capital. *Peoria* (41,000), *Alton* (10,300), and *Galena* (12,000) are important towns.

The chief towns in Iowa are *Des Moines* (50,000), the capital, *Davenport* (27,000), *Burlington* (22,500), *Dubuque*, and *Muscatine*.

In Wisconsin, *Milwaukee* (204,500), the largest city, is another example of rapid growth and prosperity. It has been built principally since 1830, possesses a fine harbor on Lake Michigan, and does a large trade on the lakes. Fire destroyed a large part of the city in 1892. *Madison* is the capital. *Racine* and *Green Bay* are rising towns. *Superior City* is at the extreme west end of Lake Superior.

In Minnesota, *St. Paul* (133,000), the capital, is at the head of Mississippi navigation. *Minneapolis* (164,700) is the largest town. *Duluth* (33,000) is at the western end of Lake Superior.

Missouri is a large and important State, intersected by the Missouri River, which joins the Mississippi at St. Louis. Its surface is level, consisting of extensive prairies, with a very fertile soil. It is especially rich in minerals, chiefly iron, lead, coal, and salt. Corn, hemp, and tobacco grow abundantly in this State, and vast herds of cattle are reared on the prairies.

St. Louis (451,000), on the Mississippi, is the principal centre of trade for the hunters and traders whose operations extend to the Rocky Mountains. It has also a large trade on the Mississippi and Missouri Rivers. *Jefferson*, near the centre of the State, is the capital. *St. Genevieve* and *Independence* are rising towns.

Kansas is a rapidly rising State, lying to the west of Missouri, with fertile prairie lands in the east, but barren in the west. The chief towns are *Leavenworth*, *Lecompton*, and *Lawrence;* and near them is *Topeka* (31,000), the capital.

California, on the Pacific coast, is celebrated for its rich gold and silver mines, discovered in 1849. Previous to that time it was almost uninhabited, except by Indians. It now contains 1,210,000 inhabitants. The country is mountainous, lying mainly between the parallel chains of the

Pacific ranges. The mountains are generally covered with timber, and contain groves of enormous trees, some of which measure from twenty to thirty feet in diameter. Gold is chiefly found on the west side of the *Sierra Nevada* mountains. Quicksilver is also found. The soil is very productive. Mining, agriculture, fruit-farming, stock-raising and wool-growing are the principal occupations of the people. Good wine is also made in considerable quantities.

San Francisco (299,000), the largest city, and capital of California, is situated on a bay of the same name. Its commerce is enormous, it being the principal commercial emporium of the Pacific coast. *Oakland* (49,000), *Sacramento* (26,400), in the gold regions, *San José* (18,000), *Los Angeles* (50,400), and *Stockton* (14,400) are important towns.

Oregon, on the Pacific coast, is mountainous, and covered with magnificent forests. The coast is rocky, and has few good harbors. The soil is very fertile between the mountains and the coast. Its population, which is rapidly increasing, is principally settled in the valley of the Willamette, between the Cascade range and the Pacific Ocean. *Salem*, on the Willamette, is the capital; *Portland* (46,400), and *Oregon City* are the chief towns.

Washington has the best harbors in the United States on the Pacific coast. Much of the State is covered with magnificent forests of gigantic pine. *Olympia* (2,500), at the head of Puget Sound, is the capital. New and important towns are rapidly being established. *Tacoma* (36,000) is the chief commercial centre. Other towns are *Seattle* (42,500), and *Whatcom* (9,000).

Nebraska, Nevada, and **Colorado.**—Nebraska is a prairie country; but Nevada and Colorado are mountainous, and are important for their valuable gold and silver mines.

In Nebraska are: *Lincoln*, the capital, and *Omaha* (140,500).

In Nevada are: *Carson City*, the capital, and *Virginia City* (12,000), with its celebrated silver mines.

In Colorado are: *Denver* (107,000), the capital and principal city, and *Pueblo* (25,000), a growing town.

North and **South Dakota** have recently been formed into States from what was formerly Dakota territory. Both are good agricultural States, but they are subject to terrible cyclones, which sometimes make fearful havoc and destroy life.

In North Dakota the chief towns are *Bismarck* (5,000), the capital, *Fargo* (10,000), and *Pembina*.

The principal towns in South Dakota are *Pierre* (6,000), the capital, *Yankton*, and *Sioux Falls*.

Montana possesses considerable mineral wealth in the western portion. At the eastern end it resembles Dakota. *Helena* (14,000) is the capital. Other towns are *Virginia* and *Fort Benton*.

Wyoming is mountainous. It is the only State in which women may vote and hold public office. The chief towns are *Cheyenne* (11,700), the capital, and *Laramie* (4,000).

Idaho resembles Wyoming. Both are rich in minerals. *Boisé* (5,000) is the capital.

TERRITORIES OF THE UNITED STATES.

The **Territories of the United States** are under the direct control of Congress until they become sufficiently populous to entitle them to be formed into independent States. They are six in number:

Indian.	New Mexico.	Oklahoma.
Utah.	Arizona.	Alaska.

The country embraced in these Territories (except Alaska) generally resembles that of the adjacent States. Those to the east of the Rocky Mountains are level prairie lands. Those to the west are more mountainous, or consist of high table lands, such as Utah.

Arizona and **New Mexico** adjoin Mexico, and are mountainous and rich in minerals, particularly those of gold and silver. *Prescott* is the capital of Arizona; and *Santa Fé*, on the great south-west overland route, the capital of New Mexico.

Oklahoma is a new territory recently formed from the western portion of the Indian Territory. *Guthrie* is the capital.

The **Indian Territory** is a portion of land set apart for the Indians who have been deported from the more settled States. The tribes represented are Cherokees, Creeks, Choctaws, and Seminoles.

Utah contains the famed Great Salt Lake, near which is *Salt Lake City* (45,000), the chief town and settlement of the Mormons. It has been made by irrigation the centre of a fertile district, and round it are a number of small villages, also peopled by the Mormons. Women vote in this territory.

Alaska, formerly Russian America, comprises the north-west corner of North America, and is separated from the Dominion of Canada by the 141st degree of west longitude. A chain of volcanic mountains extends from Mount St. Elias through the peninsula of Alaska and the Aleutian Isles. The Yukon River, rising in the Rocky Mountains, flows north-west and west through the centre of the country, and falls into Behring Strait. The Colville River flows north into the Arctic Ocean.

It is an inhospitable region, valuable only for its furs, which the natives barter at the several factories along the coast, the chief of which is Sitka, formerly New Archangel,

on Sitka Island. The inhabitants are chiefly Eskimos and Indians, who lead a wandering and barbarous life, and subsist by hunting and fishing. White settlers are increasing in number.

This Territory was purchased by the United States from Russia, in 1867.

MEXICO.

Area, 767,000 square miles, about three and a half times the size of Quebec; population, 11,500,000; persons to square mile, nearly 15.

The **United States of Mexico** are bounded on the north by the United States, on the west by the Pacific Ocean, on the south by the Pacific Ocean and Central America, and on the east by the Gulf of Mexico.

Mexico consists of twenty-seven States, two Territories, and one Federal District, united under a government formed like that of the United States.

The surface is for the most part a high plateau, from 6,000 to 8,000 feet above the sea. It is subject to volcanic eruptions and earthquakes. The *Rocky Mountains* are continued through Mexico under the name of the *Cordilleras*. These are highest in the south, where the lofty volcanoes Orizaba and Popocatepetl rise to the height of 17,373 and 17,884 feet respectively.

The principal rivers are the *Rio Grande*, which forms the north-eastern boundary, and flows into the Gulf of Mexico, and the *Santiago*, flowing into the Pacific Ocean.

The coast-line of Mexico is more broken on the Pacific than on the Gulf of Mexico. The principal gulfs are those of *Mexico*, *Campeachy*, and *California;* the latter extending 700 miles between the peninsula of Lower California and the mainland, and meeting the Colorado River from the United States.

The principal capes are *Catoche*, *Corrientes*, and *San Lucas*.

Mexico possesses the temperatures and climates of the three zones. On the coast it is hot and unhealthy, gradually becoming milder towards the high plateau in the interior; on the highest mountains it is cold, and the snow never melts. Its productions are varied. Indian corn forms the principal staple; and, besides that, coffee, cocoa, sugar, indigo, and the maguey, from which pulque, the favorite drink of the lower classes, is made, are extensively cultivated. On the coast all the tropical fruits, and on the high lands all the European grains, flourish. Yucatan exports mahogany and logwood.

The cochineal insect, yielding a valuable dye, is largely exported. Immense herds of cattle, horses, and mules are reared on the northern prairies. It is also rich in minerals; and, previous to the revolution of 1821, its mines produced nearly 25,000,000 dollars of silver annually. They are not now so productive. Iron, copper, lead, and quicksilver are also found. The inhabitants are composed of native whites, or creoles, Indians, and mixed races of whites, Indians, and negroes. The Indians of the south are comparatively civilized, and live in villages; in the north they are savage, and are frequently at war with each other and with the white inhabitants.

Mexico was first conquered by the Spaniards, under Cortez, in 1521. At that time it consisted of an extensive empire under a regular government. The people were the most civilized on the continent; and many interesting monuments still remain to show their ancient grandeur. The chief of these is the pyramid of Cholula, 70 miles east of Mexico, which is a lofty mound, covering a larger area than any of the great pyramids of Egypt. The colonists threw off the Spanish yoke in 1821, and in 1823 established a republic. In 1845–48, during the war with the United States, Mexico lost Texas and the northern part of the territory which now forms the State of California, and the Territories of Utah, New Mexico, and Arizona. In 1861, Britain, France, and Spain sent an expedition against Mexico, in order to indemnify themselves for losses sustained by their subjects in that country. Britain and Spain withdrew their forces, but the French, not satisfied, conquered the greater part of the country, and induced the Archduke Maximilian of Austria to accept the title of Emperor. So long as the French army occupied the country, Maximilian retained his position and title, but in 1867, when the French troops were withdrawn, the Emperor, after a brave but futile struggle, was taken prisoner and shot by the Republican forces. The government is now in form republican.

Owing to the hitherto unsettled state of the country, educational progress and material advancement have been slow; but there are now about 11,000 primary schools in the country, with an attendance numbering over half a million. In most of the States education is free and compulsory. The annual cost of education is over 3,500,000 dollars. The Roman Catholic is the prevailing religion, but all other religions are tolerated.

Mexico (329,500), the principal city, is beautifully situ-

ated in a fertile plain, about 7,500 feet above the sea. It is an elegant city, adorned with fountains and magnificent churches. About 50 miles south-east, amid numerous peaks, rises the volcano of Popocatepetl, or Smoking Mountain. *Vera Cruz* (24,000), to the east of the capital, is the principal port. Its harbor is poor, and the situation low and unhealthy. In going from Vera Cruz to Mexico, the traveller passes through several distinct zones of vegetation, from the tropical on the coast to the temperate on the plains. *Puebla* (78,500) and *Guadalajara* (95,000) are important towns. *Matamoras* (20,000), near the mouth of the Rio Grande, *Tampico*, and *Campeachy* are the principal ports on the east, and *Acapulco* and *Mazatlan* on the west; *Guanajuata* (52,000), *Zacatecas* (16,000), and *San Luis Potosi* (62,500) are in the centre of the richest silver mines. *Merida* (32,000) is the capital of Yucatan. Other important towns are *Leon* (48,000), *Monterey* (42,000), *Aguascalientes* (32,000), *Oaxaca* (29,000), and *Colima* (25,000).

CENTRAL AMERICA.

Area, 178,500 square miles, three-fourths the size of Quebec; population, 3,129,000; persons to square mile, 17.

Central America is the name generally given to that portion of North America lying between Mexico and South America, and which forms an isthmus between the two continents.

It is composed of five independent States and one British colony:

States.	*Chief Towns.*
Guatemala	New Guatemala.
Salvador	San Salvador.
Honduras	Tegucigalpa, Truxillo.
Nicaragua	Leon, Managua.
Costa Rica	San José.
British Honduras	Belize.

Central America resembles Mexico in climate, productions, religion, and institutions. It consists of a high plateau, from which rise numerous volcanoes. Earthquakes and volcanic eruptions are frequent and destructive. Most of the principal towns are situated on the inland plateau; on the coast the settlements are unhealthy. The inhabitants are chiefly Indians, or a mixed race of Indians, Negroes, and Spaniards.

The republics of Central America formerly belonged to Spain, but in 1821 they declared themselves independent; and since then they have been the scene of almost continual war and strife. In 1823 they formed themselves into a confederation as the United States of Central America, but in 1839 the union was dissolved, and they are now all independent States.

The soil is fertile, and, as in Mexico, combines the productions of the tropical with those of the temperate zone. The chief exports are mahogany, logwood, indigo, cochineal, cocoa, sarsaparilla, etc.

The Isthmus of Panama, at the southern extremity of these States, belonging to Colombia, in South America, is traversed by a railway which affords direct communication between the Atlantic and the Pacific Oceans.

Several schemes have been proposed for the construction of a ship-canal from the Caribbean Sea to the Pacific through the Isthmus of Panama or by way of Lake Nicaragua; and one of the many projects, that by Panama, was begun, but the scheme failed after many millions of dollars had been expended. A company has recently been incorporated to construct a canal by the Nicaragua route, with every prospect of success. The San Juan River has its outlet in the Caribbean Sea, 180 miles distant from the Pacific.

British Honduras is a British colony. It exports large quantities of mahogany and logwood. *Belize* (6,000), the capital, is an important dépôt for British goods. Area of British Honduras, 7,560 square miles; population, 31,471.

New Guatemala (66,000), is the largest city in Central America. *Old Guatemala*, once a magnificent city, was almost destroyed by a volcanic eruption, and afterwards, in 1773, by an earthquake; in consequence, most of the inhabitants removed from it, and founded the new city. Area of Guatemala Republic, 46,800 square miles.

San Salvador (20,000), near the Pacific coast, is the centre of the indigo-producing country. The city was nearly destroyed by an earthquake in 1854. Area of San Salvador Republic, 7,225 square miles.

Tegucigalpa (13,000) is the capital, and *Truxillo* the seaport, of **Honduras.** Area of Honduras, 46,400 square miles.

Leon (25,000) is the largest city, and Managua (18,000) is the capital, of **Nicaragua.** *San Juan*, or *Greytown*, was bombarded by a United States force in 1854. Area of Nicaragua, 20,000 square miles; population, 182,000.

The **Mosquito Coast** extends along the east of Honduras and Nicaragua, from Cape Gracias à Dios to the mouth of the San Juan River. It was formerly under the protectorate of Britain, but since 1860 it has formed part of Nicaragua.

San José (24,000) is the capital of **Costa Rica.**

WEST INDIA ISLANDS.

The **West India Islands** form an extensive archipelago, extending from the peninsula of Florida, in North America, to the delta of the Orinoco, in South America, and enclosing the Caribbean Sea. They comprise nearly 1,000 islands, most of them small uninhabited rocks. They are usually

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divided into three groups—the Bahamas, and the Greater and Lesser Antilles; the latter include the Virgin Islands in the north, the Windward Islands in the south, and the Leeward Islands between.

They all belong to European Powers, except Hayti, which is independent, and Margarita and a few small islands along the coast, which belong to Venezuela, in South America.

THE BANANA.

They are in general mountainous, the largest being traversed by ranges of a considerable height. In the Lesser Antilles there are many volcanoes, and earthquakes are frequent. Most of the small islands have been formed by submarine volcanoes.

The climate is hot and unhealthy, though modified by the sea and land breezes on the coast, and by the height of the mountains in the interior. Like most tropical countries, there is a wet and a dry season; violent hurricanes occur from August to October.

The islands are celebrated for their rich products. Every variety of tropical fruits and spices, such as oranges, pine-apples, bananas, and ginger, grows in abundance, and the forests produce valuable cabinet woods. The sugar-cane and coffee form the great staple products; the first yielding sugar, rum, and molasses. Tobacco, indigo, pepper, and various spices are extensively cultivated. No wild animals are found; but birds and insects are beautiful and numerous. Turtles are found on the coasts.

The population consists chiefly of negroes and mixed races, the whites numbering only about one-sixth of the whole. The Imperial Government in 1834 paid 100,000,000 dollars to free the slaves on the British Islands.

THE PINE-APPLE.

BRITISH WEST INDIES.

Area, 13,118 square miles, three-fourths the size of Nova Scotia; population, 1,380,000.

The **British Islands** comprise all the Bahamas, Jamaica, in the Greater Antilles, and the principal islands of the Lesser Antilles. They are formed into five separate governments, as follows:

	Chief Towns.
1. BAHAMAS	Nassau.
2. JAMAICA	Kingston, Spanish Town.
3. LEEWARD ISLANDS, comprising:	
TORTOLA	Tortola.
ANEGADA and VIRGIN GORDA	Roadtown.
ANGUILLA	Anguilla.
BARBUDA	Barbuda.
ST. CHRISTOPHER (ST. KITTS)	Basseterre.
NEVIS	Charlestown.
ANTIGUA	St. John.
MONTSERRAT	Plymouth.
DOMINICA	Roseau.
4. WINDWARD ISLANDS, comprising:	
ST. LUCIA	Castries.
ST. VINCENT	Kingston.
BARBADOS	Bridgetown.
GRENADINES (cluster of small islands).	
GRENADA	St. George.
5. TRINIDAD	Port of Spain.
TOBAGO	Scarborough.
BERMUDAS	Hamilton.

1. The **Bahamas** (48,000) are the most northerly of the West India Islands, and comprise about 500 islands, few of

which are inhabited. They are generally low, barren, and rocky, and surrounded by coral reefs. The Gulf Stream sweeps through the channel between Florida and the Great Bahama Bank, from which most of the Bahama Islands rise, at the rate of five miles an hour, rendering navigation dangerous. The principal islands are: *Bahama*, which gives its name to the group; *New Providence*, on which is situated Nassau (5,000), the capital; and *San Salvador*, which, according to some, was the first land reached by Columbus.

2. **Jamaica** (640,000), the largest and most valuable of the British Islands. It was taken from Spain in 1655. The *Blue Mountains*, rising above 7,000 feet in height, and covered with forests, traverse the island from east to west. The country is well watered by small streams. Its products are sugar, rum, coffee, logwood, dyes, molasses, and spices, which are chiefly exported to Britain. *Kingston* (40,000), the capital, is situated on the north side of Port Royal, a fine harbor, which is well defended. It carries on a large shipping trade, and is connected by railway with *Spanish Town* (5,700), the former capital, ten miles distant.

Coffee Plant.

3. **Leeward Islands** (130,000). Antigua is the principal island, of which *St. John* (10,000) is the capital and seat of government. *St. Christopher* has a fertile soil. *Basseterre* (7,000), its principal town, and *Roseau* (5,000), the chief town of Dominica, export sugar, rum, and molasses.

4. The **Windward Islands** (292,000) are the most easterly and southerly group of the West India Islands. *Barbados*, the oldest British settlement, is densely peopled: it has 1,098 persons to the square mile. *Bridgetown* (21,000), the largest town, is the capital and seat of government. In *St. Vincent* is the volcano of Morne Garou. *Kingston* (4,500), its chief town, carries on an extensive trade. *St. George*, in Grenada, and *Castries* (6,700), in St. Lucia, are important towns.

5. **Trinidad** and **Tobago** (229,000) are the most southerly of the West India Islands, and, next to Jamaica, Trinidad is the largest of the British Islands. It is separated from Venezuela by the Gulf of Paria. It is distinguished for its fertility and beautiful scenery, and is covered with valuable forests. On the south-west promontory is a lake of asphalt, or pitch, a mile and a half in diameter, and of unknown depth (this material is now extensively used for street paving): near it are a number of remarkable mud volcanoes. The exports are cocoa, sugar, and molasses. *Port of Spain* (33,000), on the west coast, is the capital.

Tobago was annexed to Trinidad in 1889. The chief town is *Scarborough*.

The **Bermudas** (16,000) are a group of small coral islands, nearly 400 in number, of which only five are inhabited. They lie in the Atlantic, about 650 miles east of South Carolina. They are celebrated for their delightful climate, and are the favorite resort of invalids. The chief products are potatoes and arrowroot. *Long Island* is the largest of the group, and contains *Hamilton*, the capital, with 8,000 inhabitants. *Georgetown*, on *St. George's Island*, has a good harbor, is well fortified, and is an important British naval station.

SPANISH ISLANDS.

Area, 49,500 square miles; about the size of New Brunswick and Nova Scotia; population, 2,056,000.

The **Spanish Islands** are Cuba, Isle de Pinos, and Porto Rico.

Cuba (1,524,000) is the largest and most important of all the West India Islands. It is 760 miles long, and about 60 broad, and is traversed by an extensive chain of mountains from east to west, covered with valuable cabinet woods. The soil is fertile, especially in the valleys in the north, producing sugar, coffee, and the finer tobaccos. It possesses valuable copper mines in the east. Its climate is delightful, and hurricanes rarely occur. A large proportion of the inhabitants were formerly negro slaves, slavery having been abolished only so recently as 1886.

Havana (250,000) is the capital and largest city, and possesses a magnificent harbor. It carries on a large trade, and is famed for its cigars. It is elegantly built: the cathedral contains the remains of Columbus. The city is connected by railway with *Matanzas* (88,000), a considerable seaport, as is also *Santiago* (72,000). *Puerto Principe* (47,000) is situated in the interior.

Porto Rico lies to the east of Haiti. It has a beautifully diversified surface, well watered and fertile. It exports chiefly sugar, coffee, and tobacco. *San Juan* (24,000), on the north coast, is the capital. *Ponce* (38,000) and *San German* (30,000) are important places.

HAITI.

Haiti, or *St. Domingo* (about 1,310,000), lying to the east of Cuba and Jamaica, is the second in size of the West India Islands. For many years it was owned jointly by France and Spain; but in 1791, during the French Revolution, the negroes expelled the French, formed a republic of their own, and were declared independent in 1800. The Spaniards held possession till 1821. Both portions now form the separate independent republics of Haiti (700,000) in the west, and Santo Domingo (610,000) in the east. The island is fertile, producing sugar, tobacco, and cocoa; but commerce has been almost destroyed by the unsettled state of the country. Area of the island, 28,249 square miles; of the republic, 10,204 square miles.

Port au Prince (50,000) is the capital of **Haiti,** and *Cape Haytien* is a large and important town.

SANTO DOMINGO.

St. Domingo (25,000) is the capital of **Santo Domingo** or **Dominica,** and is remarkable as having been the first city founded by the Spaniards in America. *Puerto Plata* (15,000) is the chief port. *Santiago* is a large and important town. *Samana,* on the north-east coast, has one of the finest natural harbors in the world. Area of Santo Domingo, 18,045 square miles.

FRENCH ISLANDS.

The **French Islands** comprise:

Martinique, Guadaloupe, Marie Galante, Les Saintes, Desirade, the northern part of *St. Martin,* and *St. Bartholomew.*

St. Pierre (20,000) is the capital, and *Port Royal* the seaport of Martinique. Guadaloupe contains the volcano *La Souffrière,* or Sulphur Mountain. *Basseterre* is the capital, and *Point-à-Pitre* the largest town.

St. Bartholomew lies between Barbuda and St. Martin. It formerly belonged to Sweden, but was ceded to France in 1878. It is a dependency of Guadaloupe.

DUTCH ISLANDS.

The **Dutch Islands** comprise:

St. Eustache, Saba, the southern part of *St. Martin,* and *Los Roques, Buen Ayre, Curaçoa,* and *Oruba.*

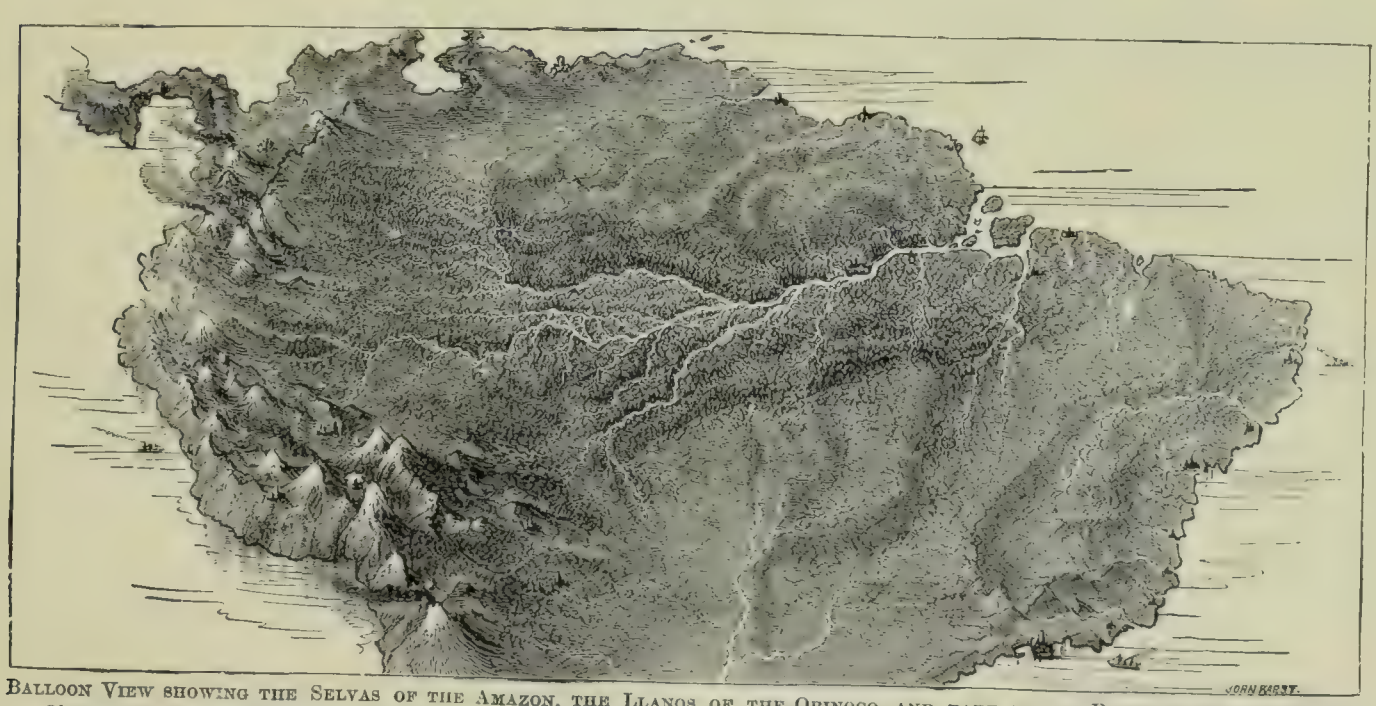
St. Eustache, on the island of the same name, and *Willemstadt,* on Curaçoa, are the principal towns.

DANISH ISLANDS.

The **Danish Islands** comprise:

St. Thomas, St. John, and *St. Croix.*

St. Thomas, on the island of the same name, is the principal station for the West India mail-steamers.



BALLOON VIEW SHOWING THE SELVAS OF THE AMAZON, THE LLANOS OF THE ORINOCO, AND PART OF THE PAMPAS OF THE LA PLATA. Observe how near each other are the head-waters of these three rivers, and that in the rainy season they are connected with each other. Steamships entering and leaving the principal seaports. Snow-covered mountains and volcanoes.

SOUTH AMERICA
Longitude West from Greenwich
CENTRAL AMERICA
CARIBBEAN SEA
NORTH EQUATORIAL CURRENT
EQUATORIAL CURRENT (WARM)
PERUVIAN CURRENT (COLD)
BRAZILIAN CURRENT (WARM)
CAPE HORN CURRENT
ANTARCTIC OCEAN
PACIFIC OCEAN
ATLANTIC OCEAN
AUSTRALIA
BORNEO
INDIA
AFRICA
COLOMBIA
VENEZUELA
GUIANA
BRAZIL
PERU
BOLIVIA
PARAGUAY
CHILE
ARGENTINA
URUGUAY
CARACAS
GEORGETOWN
PARAMARIBO
CAYENNE
BOGOTA
QUITO
LIMA
LA PAZ
ASUNCION
MONTEVIDEO
BUENOS AYRES
SANTIAGO
RIO JANEIRO
Valparaiso
Callao
Panama
Aspinwall or Colon
Cartagena
Barranquilla
Santa Marta
Maracaibo
Valencia
Barquisimeto
Orinoco R.
Angostura or Ciudad Bolivar
Trinidad
Gulf of Paria
Barbados
Curaçoa I.
Margarita I.
Cumana
La Guayra
Gulf of Venezuela
Pt. Gallinas
Gulf of Darien
Isthm. of Panama
Panama R.
Atrato R.
Magdalena R.
Cauca R.
Medellin
Antioquia
Socorro
Meta R.
Arauca R.
Tolima (Vol.)
Guaviare R.
Cauca R.
Buenaventura
Bay of Choco
Popayan
Pasto
Esmeraldas
C. San Francisco
C. San Lorenzo
Guayaquil
Gulf of Guayaquil
C. Blanco
Parina Pt.
C. Aguja
Lobos Is.
Lambayeque
Trujillo
Paita
Piura
Payta
Caxamarca
Chimborazo
Cotopaxi (Vol.)
Antisana (Vol.)
Napo R.
Putumayo R.
Japura R.
Rio Negro
Solimoens R.
Amazon River
Manaos
Obidos
Macapa
Mouth of the Amazon R.
Marajo or Joannes I.
Para
Maranhao
Equator
Parnahyba
Fortaleza (Ceara)
Fernando de Noronha I.
Cape St. Roque
Natal
Parahyba
Recife or Pernambuco
C. St. Augustine
Maceio
Aracaju
Bahia or San Salvador
Porto Seguro
Victoria
Cape Frio
Rio Janeiro
Santos
St. Catharine I.
Paranagua
Curitiba
Porto Alegre
Desterro
Pelotas R.
Lake Patos
Rio Grande
Jacuhy R.
Uruguay R.
Salto
Paysandu
San Pedro do Sud
Colonia
Maldonado
Rio de la Plata or Plate R.
C. San Antonio
Dolores
Rio Colorado
Rio Negro
Valdivia
Concepcion
Chillan
Talca
Curico
Tupungato
Aconcagua
San Juan
Mendoza
San Luis
Rosario
Santa Fé
Cordova
Tucuman
Salta
Jujuy
Orano
Tarija
Potosi
Sucre
Oruro
Cochabamba
Santa Cruz
Trinidad
Mamore R.
Beni R.
Sorata Mt. (Illimani Mt.)
Misti (Vol.)
Arequipa
Arica
Iquique
Cobija
Mejillones Bay
Antofagasta
Caldera
Huasco
La Serena
Coquimbo
Illapel
Aconcagua
Tropic of Capricorn
St. Felix Is.
Juan Fernandez
Mas-a Fuera
Chincha Is.
Callao
Lima
Ayacucho
Cuzco
Urubamba R.
Apurimac R.
Ucayali R.
Pachitea R.
Huallaga R.
Marañon R.
Yavary R.
Purus R.
Madeira R.
Tapajos R.
Xingu R.
Araguay R.
Tocantins R.
Tabatinga
Nauta
Iquitos
Ega or Tefe
Coary
Borba
Santarem
Obidos
Manaos
Falls of the Madeira R.
Diamantina
Malto Grosso
Cuyaba
Goyaz
Lapa
São João
Caxias
San Pedro
Oeiras
Porto Imperial
Barra
Urubu
Diamantina
Miranha
Ouro Preto
Itambe Mt.
Itacolumi Mt.
Serra do Espinhaço
Serra do Mar
Serra Geral
Serra do Paranahiba
Serra do San Francisco
Paranahiba R.
Rio Grande
Tiete R.
Parana R.
Apa R.
Tarija R.
Pilcomayo R.
Bermejo R.
Guapay R.
Mamore R.
Itenez R.
Sahama
Gualatieri
Misti (Vol.)
Isluga
Mollendo
Tacna
Arica
Pisco
Peruvian
Mezillones Bay
Cobija
Iquique
Loa R.
Gualatieri
Sahama
Potosi
Tarija
Orano
Jujuy
Salta
Tucuman
Caldera
Huasco
La Serena
Coquimbo
Illapel
Aconcagua
Valparaiso
Santiago
Tupungato
Talca
Curico
Chillan
Concepcion
Valdivia
Rio Colorado
Rio Negro
Antuco (Vol.)
Dolores
Rio de la Plata or Plate R.
C. San Antonio
Maldonado
Colonia
Montevideo
Buenos Ayres
San Pedro do Sud
Paysandu
Salto
Lake Patos
Pelotas R.
Jacuhy R.
Uruguay R.
Parana R.
Corrientes
Villa Rica
Itapua
Iguiacu R.
Asuncion
Paraguay R.
Pilcomayo R.
Bermejo R.
Parana R.
Tucuman
Santiago
Catamarca
La Rioja
Porongos L.
Cordova
Santa Fé
San Juan
Aconcagua
Mendoza
Rosario
San Luis
Tupungato
Carico
Talca
Chillan
Concepcion
Valdivia
Antuco (Vol.)
Rio Colorado
Rio Negro

SOUTH AMERICA.

Area, 6,837,000 square miles; greatest extent from north to south, 4,600 miles; and from east to west, 3,200 miles; Population, 36,420,000; persons to square mile, 5.

South America comprises the southern portion of the American continent from the Isthmus of Panama. It is bounded on the north by the Caribbean Sea; on the west by the Pacific Ocean; on the south by the Antarctic Ocean; and on the east by the Atlantic Ocean.

Like the Northern Continent, South America may be divided into four great regions, besides the narrow strip of land between the Andes and the Pacific, viz.: the north-eastern slope, or valley of the Orinoco; the great central plain, or valley of the Amazon, extending from the Andes on the Pacific coast to the Atlantic Ocean, across the widest part of the continent; the Atlantic slope from the mountains of Brazil eastward; and the south-eastern slope, or valley of La Plata, consisting chiefly of vast pampas or plains.

The great chain of the *Andes*, over 4,000 miles in length, extends from the extreme north to the southern point of the continent, parallel with the Pacific coast, from which it is never more than 200 miles distant. The Andes are exceeded in height by only a few peaks of the Himalayas, but even these they surpass in the vast extent and size of their rugged masses. In the north they consist of three parallel chains, soaring to their greatest height when they unite in the high table-lands of Quito, in Ecuador, which are 6,000 feet above the sea. Here they form a mass of active volcanoes from 18,000 to 20,000 feet above the sea, their summits covered with perpetual snow. Amongst these are Chimborazo (20,650); Cotopaxi, the most dreaded volcano; Antisana, and others. They then extend south in two parallel chains, enclosing Lake Titicaca, which is 12,540 feet above the sea, and 125 miles in length, and discharges into a smaller lake, which has no apparent outlet. On the table-lands between Bolivia and Peru they form another group of immense peaks of nearly equal height, comprising Illimani, Sorata, Sahama, Arequipa, and others. From here they extend southwards in one chain, till, from covering an area 400 miles in breadth, they gradually narrow down to 20 in Patagonia. The highest summits in the whole range are Sorata in Bolivia, 21,470 feet; Sahama, also in Bolivia, 22,350; and Aconcagua, near Valparaiso, in Chili, 22,422 feet high, the highest peak in America.

In the north-east are the parallel chains of the Parimé and Acarai Mountains, rising to an elevation of from 7,000 to 10,000 feet. To the east, in Brazil, there are several chains of mountains, generally stretching from north to south, but not of any great height.

In the Andes are the sources of some of the greatest rivers in the world. The *Amazon* rises in Peru, receives on the north bank the *Napo*, *Putumayo*, *Yapura*, and *Negro*—the latter forming a remarkable connection with the Orinoco, by means of the *Cassiquiare River*; and on the south bank, the *Ucayali*, *Purus*, *Madeira*, *Tapajos*, and *Xingu*; and flows into the Atlantic by an estuary 180 miles wide at its mouth, after a course of over 4,000 miles. It is navigable to the mouth of the Ucayali, over 2,000 miles, and up most of its affluents for the greater part of their courses. On the Madeira are remarkable falls. The tide flows into the Amazon as far as 550 miles from its mouth, and at spring tides is headed by a bore, or tidal wave, which frequently swamps boats on the river.

The *La Plata* is formed by the junction of the *Uruguay* and *Parana Rivers*, rising in the high table-lands of Brazil, the latter receiving from the west the *Salado*, and *Paraguay*, which also has several large tributaries. La Plata is 2,400 miles long, and is navigable for large vessels for 1,300 miles. At Buenos Ayres, 200 miles from its mouth, it is 30 miles wide.

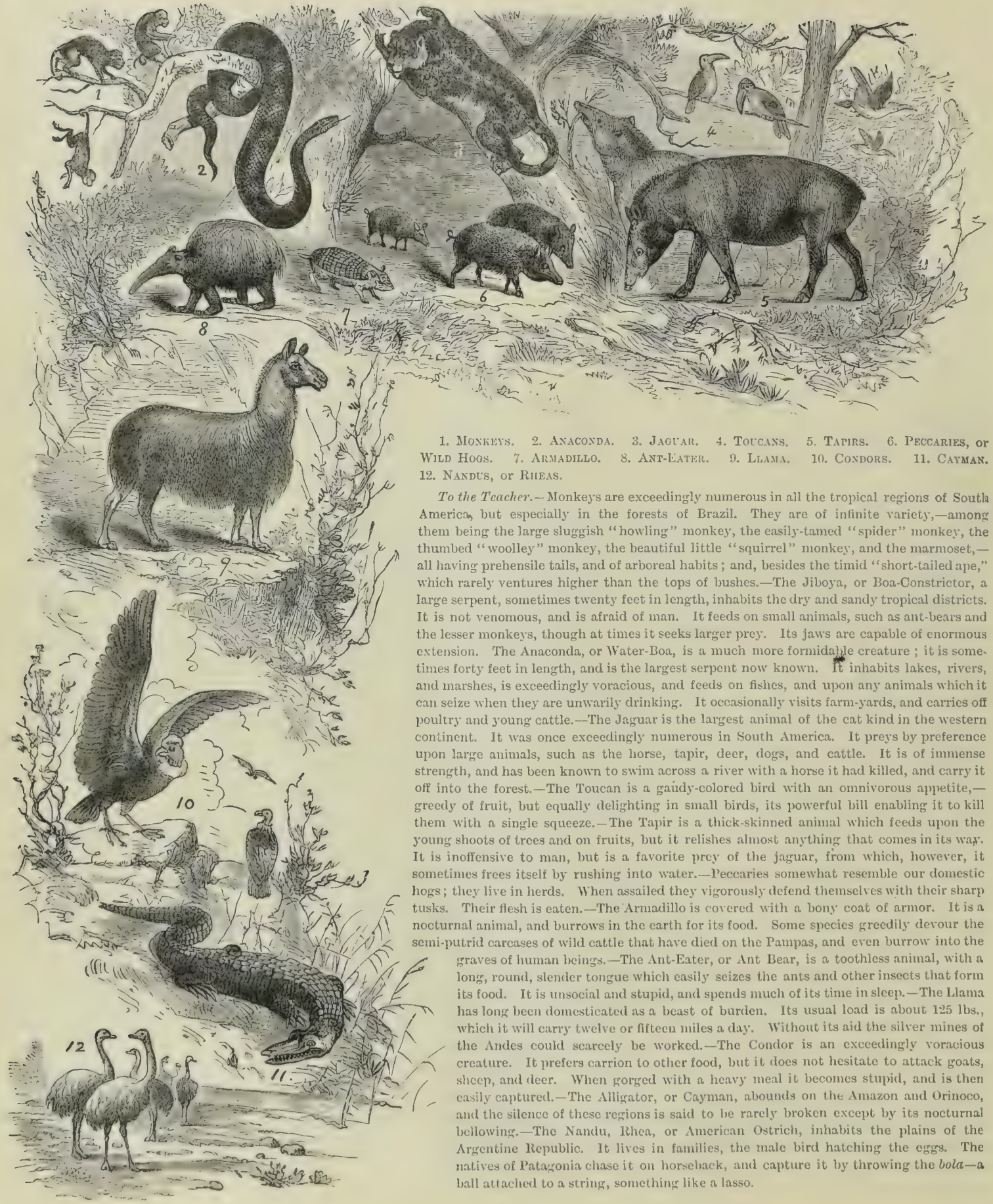
The *Orinoco* rises in the Parimé Mountains, and flows, by a number of mouths, into the Atlantic, a little south of the Island of Trinidad. Its length is about 1,600 miles, and it is navigable for more than half this distance. The Orinoco connects with the Rio Negro and *Amazon* by the *Cassiquiare River*, forming a complete chain of inland navigation.

The other important rivers are the *Magdalena*, flowing into the Caribbean Sea; the *Essequibo*, *Para* (with its affluent, the *Tocantins*), *Paranahyba*, and *San Francisco* in the north, and the *Colorado* and *Negro* in the south, flowing into the Atlantic. The Para may be considered as an arm of the Amazon, separating Marajo Island from the mainland.

West of the Andes there are no rivers of any consequence, the mountains being near to the coast, and the intervening country generally hot and dry.

South America is very compact, the coast-line being almost unbroken. The principal capes are on the east coast—*Gallinas*, *St. Roque*, *Frio*, *St. Antonio*; and *Horn*, at the southern extremity.

The bays, straits, etc., are few in number. The chief are: The *Gulfs of Darien*, *Maracaybo*, and *Paria*, on the north; *All Saints Bay*, *Gulfs of San Matias* and *St. George*, on the east; the *Strait of Magellan* between Patagonia and Tierra del Fuego at the south; the *Gulfs of Guayaquil* and *Panama* on the west; besides the estuaries of the rivers Amazon and La Plata.



1. Monkeys. 2. Anaconda. 3. Jaguar. 4. Toucans. 5. Tapirs. 6. Peccaries, or Wild Hogs. 7. Armadillo. 8. Ant-Eater. 9. Llama. 10. Condors. 11. Cayman. 12. Nandus, or Rheas.

To the Teacher.—Monkeys are exceedingly numerous in all the tropical regions of South America, but especially in the forests of Brazil. They are of infinite variety,—among them being the large sluggish "howling" monkey, the easily-tamed "spider" monkey, the thumbed "woolley" monkey, the beautiful little "squirrel" monkey, and the marmoset,—all having prehensile tails, and of arboreal habits; and, besides the timid "short-tailed ape," which rarely ventures higher than the tops of bushes.—The Jiboya, or Boa-Constrictor, a large serpent, sometimes twenty feet in length, inhabits the dry and sandy tropical districts. It is not venomous, and is afraid of man. It feeds on small animals, such as ant-bears and the lesser monkeys, though at times it seeks larger prey. Its jaws are capable of enormous extension. The Anaconda, or Water-Boa, is a much more formidable creature; it is sometimes forty feet in length, and is the largest serpent now known. It inhabits lakes, rivers, and marshes, is exceedingly voracious, and feeds on fishes, and upon any animals which it can seize when they are unwarily drinking. It occasionally visits farm-yards, and carries off poultry and young cattle.—The Jaguar is the largest animal of the cat kind in the western continent. It was once exceedingly numerous in South America. It preys by preference upon large animals, such as the horse, tapir, deer, dogs, and cattle. It is of immense strength, and has been known to swim across a river with a horse it had killed, and carry it off into the forest.—The Toucan is a gaudy-colored bird with an omnivorous appetite,—greedy of fruit, but equally delighting in small birds, its powerful bill enabling it to kill them with a single squeeze.—The Tapir is a thick-skinned animal which feeds upon the young shoots of trees and on fruits, but it relishes almost anything that comes in its way. It is inoffensive to man, but is a favorite prey of the jaguar, from which, however, it sometimes frees itself by rushing into water.—Peccaries somewhat resemble our domestic hogs; they live in herds. When assailed they vigorously defend themselves with their sharp tusks. Their flesh is eaten.—The Armadillo is covered with a bony coat of armor. It is a nocturnal animal, and burrows in the earth for its food. Some species greedily devour the semi-putrid carcases of wild cattle that have died on the Pampas, and even burrow into the graves of human beings.—The Ant-Eater, or Ant Bear, is a toothless animal, with a long, round, slender tongue which easily seizes the ants and other insects that form its food. It is unsocial and stupid, and spends much of its time in sleep.—The Llama has long been domesticated as a beast of burden. Its usual load is about 125 lbs., which it will carry twelve or fifteen miles a day. Without its aid the silver mines of the Andes could scarcely be worked.—The Condor is an exceedingly voracious creature. It prefers carrion to other food, but it does not hesitate to attack goats, sheep, and deer. When gorged with a heavy meal it becomes stupid, and is then easily captured.—The Alligator, or Cayman, abounds on the Amazon and Orinoco, and the silence of these regions is said to be rarely broken except by its nocturnal bellowing.—The Nandu, Rhea, or American Ostrich, inhabits the plains of the Argentine Republic. It lives in families, the male bird hatching the eggs. The natives of Patagonia chase it on horseback, and capture it by throwing the *bola*—a ball attached to a string, something like a lasso.

To the south are the *Falkland Islands*, *Tierra del Fuego*, *Cape Horn*, *Staten Island*, and numerous small groups of islands off the west coast of Patagonia, the principal of which are *Wellington Island* and *Chiloe Island*. To the west of Chili is *Juan Fernandez Island*, and off the coast of Ecuador are the *Galapagos* or *Turtle Islands*.

The climate of South America varies greatly even within the distance of a few miles. At the equator the snow-line is about 16,000 feet above the sea, and from this height to the base of the mountains are to be found in succession the climate and vegetation of all the zones. It is generally hot and unhealthy on the coast; on the east within the tropics it is very moist, but on some parts of the west coast rain seldom falls. No part of the world is so subject to volcanic eruptions and earthquakes as the countries situated near the

GATHERING INDIA-RUBBER.

Andes. Nearly all the principal cities in the western part of the continent have been more or less destroyed by them. An earthquake at one time permanently raised a great part of the coast of Chili from two to seven feet above its former level.

The soil of South America is remarkable for its fertility. Humboldt estimates the vegetable productions of South America at about one-third of all the varieties in the world. Along the banks of the Amazon the country is densely wooded; but the courses of the other large rivers are chiefly through vast grassy plains. The India-rubber tree, cassava, cocoa, indigo, sugar, cotton, corn, coffee, arrow-root, Peruvian bark and other medicinal plants, and all the tropical fruits and spices, are produced abundantly and with but little labor; but owing to the unsettled political state of the continent, and the want of enterprise in the inhabitants, agriculture is greatly neglected, and the vast resources of the country are still undeveloped.

The animals peculiar to South America are the llama and the alpaca; the first a species of small camel, but without a hump; the other resembling a sheep or goat, and yielding fine wool. The condor of the Andes, the sloth, tapir, armadillo, are also to be found; while monkeys, serpents, birds of brilliant plumage, and a great variety of insects abound, especially in the forests of Guiana.

South America is also rich in the most valuable minerals; gold, diamonds, and precious stones are extensively found, together with iron and other metals in Brazil and other parts; silver is largely met with in Peru and Bolivia.

The Portuguese formerly possessed Brazil, and the Spaniards the rest of the continent, except Patagonia, which is little known and little valued; but all the States are now independent.

When Peru was first conquered by the Spaniards, the inhabitants were to a great extent civilized, had a regular form of government, and built fine cities, temples, and monuments; but most of the other inhabitants of the continent were ignorant and barbarous. The present population, besides the Spanish and Portuguese colonists and their descendants, consists of Indians, and mixed races of whites, Indians, and negroes. The whites probably number less than one-third of the whole.

South America is divided into ten republics and three European possessions (British, French, and Dutch Guiana).

The Countries are:

Colombia,	Peru,
Venezuela,	Bolivia,
Ecuador,	Chili,
Guiana,	Argentine,
United States of Brazil,	Paraguay,
	Uruguay.

REPUBLIC OF COLOMBIA.

Area, 500,000 square miles, more than twice as large as Ontario; population, 3,900,000; persons to square mile, 8.

The **Republic of Colombia** occupies the north-west part of the continent, and joins Central America by the Isthmus of Panama or Darien, which is from 30 to 50 miles wide. Together with the adjoining States of Venezuela and Ecuador, it formed the republic of Colombia, after the Spanish Colonies had gained their independence; but Venezuela seceded in 1829, and Ecuador in 1831.

The Andes traverse the western part of the country in three chains, but in the south and east it is a level tract, forming part of the llanos, or vast grassy plains annually inundated by the Orinoco. The *Magdalena River* flows

northward, between the parallel chains of the Andes, into the Caribbean Sea, after a course of about 860 miles.

The climate in the lower parts of the country is hot, damp, and unhealthy; most of the cities, however, are built on the high table-lands of the Andes. The forests on the mountain slopes contain mahogany, caoutchouc, and other valuable trees. The soil is fertile; and cotton, sugar, indigo, coffee, cocoa, and other tropical products grow in great abundance; but agriculture and commerce are at a low ebb. On the llanos vast herds of cattle roam; and hides and tallow form important articles of export. Gold, platinum, and precious stones are also found in the mountains.

The Isthmus of Panama, belonging to the Republic of Colombia, is now traversed by a railway from Aspinwall, on the Caribbean Sea, to Panama, on the Pacific, affording great facilities for the commerce of the Eastern States with California and the Pacific.

All religions are tolerated.

Bogota (60,000), the capital, is a well-built city, situated on a level plain, nearly 9,000 feet above the sea. Coal is found in the vicinity. Near the city the Bogota River falls over a perpendicular precipice 600 feet high. *Medellin* (40,000), is in a mining region. *Bucaramanga* (20,000) and *Cucuta* (10,000) are coffee centres. *Cartagena* (20,000) is the principal seaport.

VENEZUELA.

Area, 549,000 square miles, twice the size of the Province of Quebec; population, 2,300,000; persons to square mile, 3½.

Venezuela lies to the east of Colombia, on the Caribbean Sea, and south of the Lesser Antilles. It formed one of the States of the Republic of Colombia, which was dissolved in 1830, and is now an independent republic.

The Parimé Mountains separate it from Brazil; and one of the chains of the Andes is continued from Colombia in a north-easterly direction along the coast. It is watered by the Orinoco, which flows through extensive llanos, or level grassy plains, supporting vast herds of cattle. The climate, soil, products, and religion are the same as those of Colombia.

Lake Maracaybo is situated in the north-west, and on its shores is an inexhaustible mine of asphalt, or pitch.

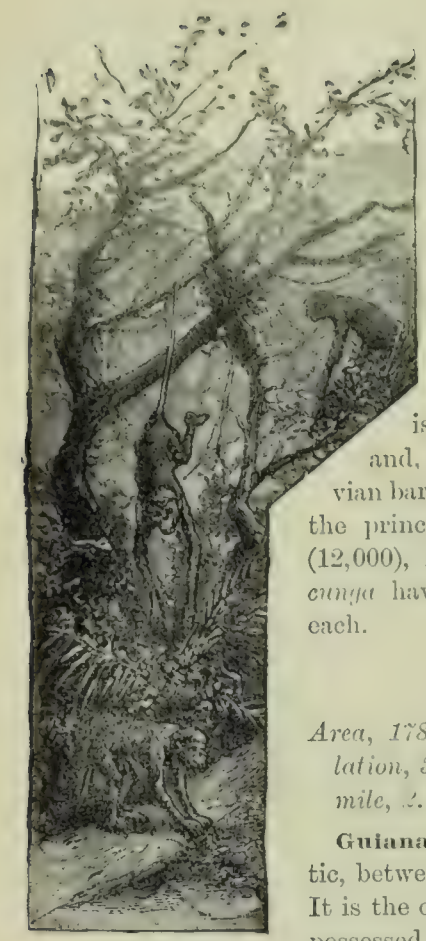
Caracas (70,500) is the capital. It was nearly destroyed by an earthquake in 1812, when 12,000 persons lost their lives. *Valencia* (39,000) is the next largest town. *Maracaybo* (34,000) and *Cumana*, the chief seaports, are very unhealthy. *Barquisimeto* (31,500), *Tocuyo* (15,000), *Maturni* (14,500), and *La Guayra* (14,000) are towns of some importance.

ECUADOR.

Area, 120,000 square miles, four and a half times the size of New Brunswick; population, 1,270,000; persons to square mile, 10.

Ecuador is situated to the south of Colombia, and is directly under the equator, as its name implies. It also formed one of the States of the republic of Colombia.

In the west it is traversed by the Andes, which have here some of their highest summits and most remarkable volcanoes. Cotopaxi is the most active volcano in the world, and rises to the height of 19,500 feet, in the form of a perfect cone. The flames from its crater sometimes rise 3,000 feet above its summit, with a terrific roaring noise. Chimborazo is also a conical peak, upwards of 20,000 feet high. Pichincha, on the slope of which the city of Quito is built, and Antisana, are also formidable volcanoes. In the east, Ecuador includes part of the level wooded valley of the Amazon. The climate, soil, and productions resemble those of Colombia. The *Galapagos*, or Turtle Islands, in the Pacific Ocean, 650 miles to the west, belong to Ecuador.



MONKEYS IN THE WOODS OF GUIANA.

Quito (50,000), the capital, is 9,500 feet above the level of the sea, and is built in a valley on the east side of the volcano Pichincha. It possesses a most delightful climate, but, like most of the towns in the republic, has suffered much from earthquakes. *Cuença* (25,000) is the seat of a university, and, with *Loxa*, exports Peruvian bark. *Guayaquil* (45,000) is the principal seaport. *Riobamba* (12,000), *Ambato*, *Loja* and *Latacunga* have populations of 10,000 each.

GUIANA.

Area, 178,000 square miles; population, 367,000; persons to square mile, 2.

Guiana is situated on the Atlantic, between Venezuela and Brazil. It is the only part of the continent possessed by European nations. It is divided into—

	Chief Towns.
British Guiana	Georgetown.
Dutch Guiana, or Surinam	Paramaribo.
French Guiana	Cayenne.

The Acarai Mountains separate it from Brazil. From being low and marshy on the coast, the land gradually rises towards the interior, and becomes more mountainous. The climate is the mildest of any country situated in the tropics, owing to the trade winds, and prevailing land and sea breezes. The soil is remarkably fruitful, producing sugar, coffee, rice, and various medicinal plants. Cayenne pepper and other tropical spices are to be found in the greatest abundance. Vegetation is most luxuriant, and the forests swarm with monkeys, birds of brilliant plumage, insects, etc.

British Guiana, the largest of the three divisions, was conquered from the Dutch in 1803. It includes the three settlements—Berbice, Demerara, and Essequibo, which comprise five electoral districts. *Georgetown* (55,500), the capital, is situated at the mouth of the Demerara River. Most of the inhabitants of the colony are negroes.

Dutch Guiana is the central portion of the country, and is sometimes called Surinam. *Paramaribo* (28,500), the capital, is situated on the Surinam River.

French Guiana is used as a penal settlement. *Cayenne* (10,600), the capital, is situated on an island of the same name, and gives to commerce the spice of red pepper, or capsicum, grown in Guiana, and known as Cayenne pepper.

In the mountains, the "Bosch" negroes maintain an independent existence.

BRAZIL.

Area, 3,210,000 square miles, about the same size as the Dominion of Canada; population, 14,100,000; persons to square mile, 4.

Brazil is bounded on the north by Guiana and Venezuela; on the west by Colombia, Ecuador, and Peru; on the west and south by Bolivia, Paraguay, La Plata, and Uruguay; and on the east by the Atlantic.

This immense country formerly belonged to Portugal, but was acknowledged independent in 1825. For many years it constituted an hereditary monarchy, under a branch of the royal family of Portugal, but is now an independent republic.

It is intersected by a number of mountain chains, generally extending from north to south, and by high table-lands, stretching westward, and dividing the tributaries of the *Amazon* from those of the *Paraguay*. The *Amazon* forms

the great feature of the northern part of the empire, and most of its large tributaries flow through Brazil. There are, besides these, the *Para*, *Paranahyba*, and *San Francisco Rivers;* so that no country in the world possesses within the same limits so many or so extensive navigable rivers. The valley of the Amazon is celebrated for its valuable forests of mahogany, logwood, and Brazil wood. From the south-west portion of the central table-lands, the vast pampas, or level plains covered with grass and small shrubs, commence, and extend as far south as Patagonia.

The climate of Brazil is of the most delightful character, especially in the south and east, where it is almost perpetual summer. In the valley of the Amazon it is hotter and more moist, rain falling almost every day for some months each year; but on the table-lands it is cooler and more healthy. Sugar, rice, coffee, and tobacco grow extensively in the north, and grain and fruits in the southern and more elevated parts. Vast herds of cattle are raised, and hides and tallow are largely exported; but agriculture and commerce are greatly neglected. Most of the animals of South America are found in Brazil, together with a varied and prolific vegetation. About three-fourths of the population consist of Indians and negroes.

The Roman Catholic is the prevailing religion, but since the establishment of the republic, Church and State have been separated, and all religions declared equal.

Rio Janeiro (500,000), the capital, is situated on a magnificent bay, and is the second largest city in South America. It contains many fine buildings, and is the chief centre of commerce in the country. *Bahia* (80,000), the former capital, is situated on the Bay of All Saints, and exports large quantities of sugar. *Pernambuco* (190,000), *Maranhao* (38,000), *Belem* (65,000), *Parahyba* (40,000), *Porto Legre* (45,000), *Ceràa* (35,000), *Ouro Preto* (22,000), and *Para*, situated on the coast, are also important commercial towns. The inland towns are small and unimportant.

Rio de Janeiro, Botafogo Bay.

PERU.

Area, 463,000 square miles; twice the size of Ontario; population, 2,622,000; persons to square mile, 6.

Peru is situated on the Pacific, to the south of Ecuador, and west of Brazil and Bolivia. It was conquered by the Spaniards under Pizarro in 1532, and remained in their possession till 1824, when it became an independent republic.

It is traversed by the double chain of the Andes, between which are high table-lands about 8,000 feet above the sea, where are situated most of the large towns. The climate is there cool and delightful, and the soil fertile, yielding all the ordinary grains. The products resemble those of Brazil; and Peruvian bark, guano, and various dye-woods are largely exported. In the eastern range of the Andes are the valuable gold and silver mines for which Peru has long been famous. The tract between the Andes and the Pacific is chiefly a hot sandy desert. To the east the country forms part of the vast forest plain or valley of the Amazon. About fifteen miles from the coast are the Chincha Islands, three in number, famed for their extensive deposits of guano, which was largely exported, but is now exhausted.

Nearly everything has to be carried into or out of the interior of the country on the backs of mules and llamas. The Andes are celebrated for their rugged and picturesque scenery. Travelling is very difficult, men and animals sometimes requiring to be taken across a torrent, slung to a single rope. Earthquakes are frequent, and some of the largest volcanoes of the Andes rise on the borders of Peru and Bolivia. The only religion tolerated is that of Roman Catholicism.

Lima (102,000), the capital, is situated in the midst of a fertile plain, and is connected by railway with *Callao* (33,500), its seaport. *Cuzco* (18,370), the ancient capital of the Incas of Peru, is situated in the interior, and still contains the remains of the magnificent Temple of the Sun, and other monuments attesting the ancient civilization of the inhabitants. *Arequipa* (29,200) and *Pasco* are the next important towns.

BOLIVIA.

Area, 567,000 square miles, more than twice the size of Quebec; population, 1,192,000; persons to square mile, 2.

Bolivia, up to the year 1825, formed part of Peru, and now takes its name from Bolivar, the leader who was chiefly instrumental in gaining its independence.

It is situated almost entirely in the interior, between Peru and Brazil, to the north of La Plata, possessing only a small portion of coast-line with one small seaport, Cobija.

On the borders of Bolivia and Peru the double chain of the Andes encloses *Lake Titicaca*, the sacred lake of the ancient Peruvians. Between the Andes and the Pacific is a sandy desert, but to the east of the Andes the country consists of a vast forest plain, watered by the tributaries of the Amazon and Paraguay. There are 5,000,000 cinchona (quinine) trees in the country. The products are the same as those of Brazil and Peru. The wool of the alpaca is also largely exported. Silver was once found in great quantities, but latterly the mines have not been so productive. Roman Catholicism is the prevailing religion.

Sucre (20,000) is the capital; *La Paz* (45,000); *Potosi* (12,000) is 13,000 feet above the sea, and contains the famous silver mines. A century ago it contained 150,000 inhabitants. *Cochabamba* (20,000) is a town of some importance.

CHILI.

Area, 294,000 square miles, considerably larger than Quebec; population, 2,767,000; persons to square mile, 9.

Chili consists of a long, narrow strip of land between the Andes and the Pacific Ocean, and extending from Bolivia southwards for 2,200 miles. It is about 150 miles in width at the broadest part. It includes Patagonia west of the Andes, and the westerly part of Tierra del Fuego. *Chiloe Island*, a large, well-wooded island, and *Juan Fernandez*, or Robinson Crusoe's Island, belong to Chili.

The surface is mountainous or hilly from the Andes to the coast. The Andes here form only one chain, and rise in the peak of Aconcagua to the height of 22,422 feet. Between the mountains are beautiful and fertile valleys. In the north is the desert of Atacama.

The climate in the northern and middle regions is hot and dry, but becomes cooler towards the south. Earthquakes are frequent, and often very destructive. The soil is most productive. Potatoes, wheat, and maize are extensively cultivated, besides olives, figs, and vines. Chili is supposed to be the native country of the potato. Gold, silver, and copper are found to a great extent near Copiapo, in the north. Chili is the most progressive of the States of South America, and exports largely guano, copper, and saltpetre. Its trade is chiefly with Great Britain.

In 1881 Chili declared war against Peru and Bolivia, and after some sanguinary contests was completely victorious. All religions are tolerated.

Santiago (200,000), the capital, is situated in a pretty and fertile district, about 60 miles from the coast. *Valparaiso* (105,000), the port of Santiago, is the principal commercial city, and carries on a large trade. *Talca* (24,000), *Concepcion* (24,000), *Chillan*, *Serena*, *Iquique*, *Tacna*, *San Felipe*, and *Copiapo* are the next towns of importance.

ARGENTINE REPUBLIC.

Area, 1,125,000 square miles, more than twice the size of all the eastern provinces of the Dominion; population, 4,100,000; persons to square mile, 3½.

The **Argentine Republic** occupies the central country between the Andes and the rivers Paraguay and Uruguay, and extends from Bolivia to Cape Horn. It comprises 14 Provinces, which obtained their independence between 1811 and 1816, and 4 Territories, including the eastern portion of Patagonia.

The surface consists chiefly of plains, called pampas, covered with coarse grass. The largest is in the north-east, called the desert of *El Gran Chaço*, and from it others extend west to the Andes, and south as far as Patagonia. In the south-west are numerous swamps and salt lakes. On these pampas vast herds of cattle and wild horses roam, and form the chief wealth of the country. Hides, tallow and bones are largely exported. The rivers of

the republic are large and important, including the *Uruguay*, and the *Parana* (with its tributaries, the *Paraguay*, *Pilcomayo*, *Vermejo*, and *Salado*), flowing into the estuary called the Rio de la Plata; and the *Colorado* and *Negro* farther south. The climate is hot, and violent hurricanes, called pamperos, occur on the pampas. The soil in the middle region is fertile, producing wheat, cotton, sugar, and rice, but agriculture is little attended to. Indians or mixed races form the greater part of the inhabitants. The prevailing religion is the Roman Catholic, but all other creeds are tolerated.

Buenos Ayres, the most important State of the Confederation, extends from the estuary of La Plata to the Negro River, which separates it from Patagonia. It severed its connection with the Argentine Confederation in 1853, but joined it again in 1861. Grain is now cultivated to a limited extent.

Buenos Ayres (561,000), the capital, and largest city not only in the Confederation, but in South America, is situated near the head of the estuary of the La Plata, the navigation of which is rendered dangerous by numerous shoals, and by the pamperos, or hurricanes from the pampas. It is an important commercial seaport, and its trade is rapidly increasing. Its chief exports are hides, tallow, and wool.

Parana (18,000), the former capital, is situated on the river Parana, 240 miles north-west of Buenos Ayres. *Corrientes* (14,000), *Cordova* (67,000), *La Plata* (65,000), *Rosario* (55,000), *Tucuman* (25,000), *Salta* (20,000), *Mendoza*, and *San Juan* are the principal towns. The Pass of Mendoza is upon the great commercial road across the Andes, between Valparaiso and Buenos Ayres.

PARAGUAY.

Area, 98,000 square miles, three times the size of New Brunswick; population, 330,000, exclusive of Indians; persons to square mile, 3.

Paraguay lies wholly in the interior, between the Paraguay and Parana Rivers. It resembles Argentine in its physical features, climate, and products; but in the north it is more mountainous, where a species of holly is grown, about one and a half feet high, called Maté or Paraguay tea, which is largely used as a beverage in South America.

Paraguay gained its independence from Spain in 1811, and up to the year 1840 was ruled by a native creole, Dr. Francia, who strictly excluded all foreigners. After his death this restriction was removed. The late Dictator, Lopez, indulged in many cruelties both to natives and foreigners. Brazil and the Argentine Republic at last joined in declaring war against him, which continued till his death, in 1870, after a heroic struggle worthy of a better cause.

Gauchos Lassoing Cattle.

Asuncion (25,000), the capital, is situated near the junction of the Pilcomayo and Paraguay Rivers. Other towns are *Villa Rica* (11,000), *Concepcion*, and *San Pedro*.

URUGUAY.

Area, 72,000 square miles, about one-third the size of the Province of Quebec; population, 711,000; persons to square mile, 9.

Uruguay, or Banda Oriental as it was called, lies between the Uruguay River and the Atlantic Ocean, and between Brazil and the estuary of La Plata.

It formerly belonged to Buenos Ayres, with which it was long engaged in hostilities, until it gained its independence in 1828.

In physical features, climate, and products it resembles Argentine. Its exports are chiefly hides and tallow to Great Britain, and dried beef to the West Indies. Within the last thirty years it has largely increased in population, and greatly improved its fortunes. All religions are tolerated.

Monte Video (175,000), the capital, possesses the best harbor on the estuary of the La Plata, and carries on the chief trade of the country.

PATAGONIA.

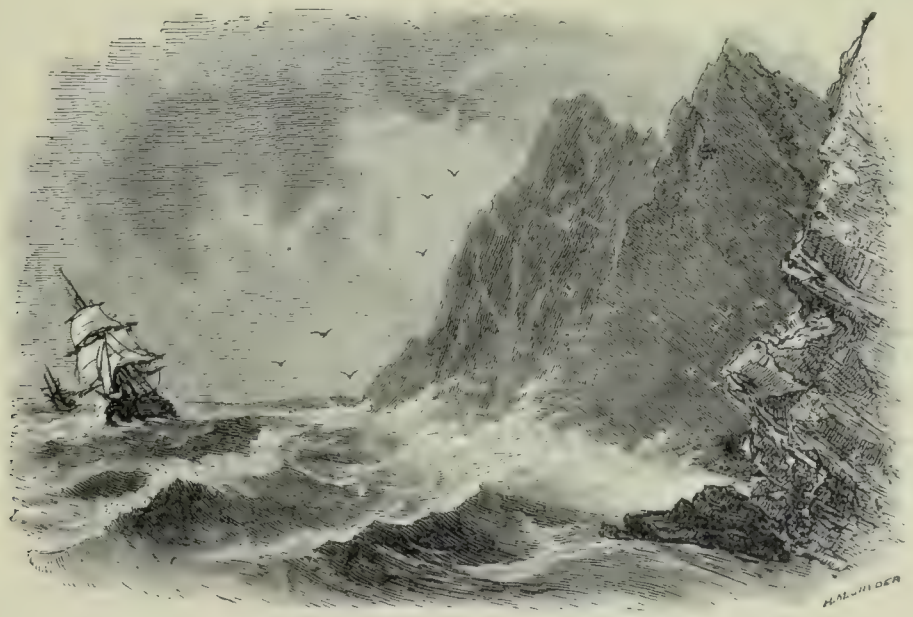
Patagonia was until lately left in the undisturbed possession of the savage natives, but now belongs wholly to the Argentine Republic. It consists chiefly of level pampas, which are cold and barren; and is thinly inhabited by a tall, well-formed race of Indians, who subsist on the flesh of wild animals, and live much on horseback. The pampas abound with wild cattle and horses.

Tierra del Fuego is a cluster of islands separated from Patagonia by the Strait of Magellan. The natives go naked, and are described as the most wretched race of ugly, deformed, and stunted savages in the world. They subsist chiefly on fish. The islands are generally thickly wooded. *Cape Horn*, or Hermit Island, is a huge dark rock, covered with trees, rising about 600 feet high. It is the most southerly point of South America, and is 1,470 miles farther south than any part of Africa. It is in about the same latitude south of the equator as the southern part of Hudson Bay is north of it. Chili now lays claim only to the western end of Tierra del Fuego, all the rest belonging to Argentine.

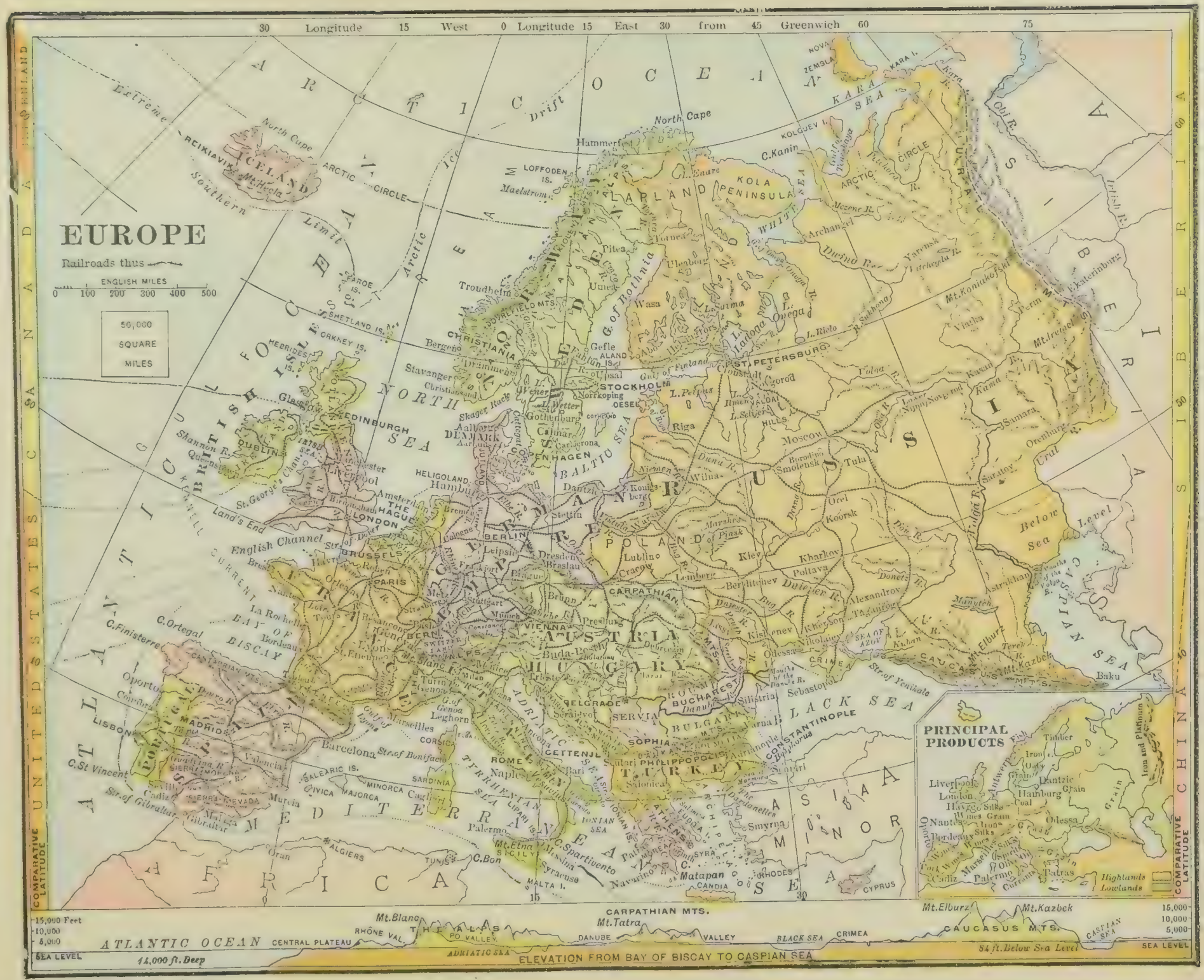
THE FALKLAND AND SOUTH GEORGIA ISLANDS.

The **Falkland Islands,** about 300 miles east of Patagonia, belong to Britain, and consist of 2 large and about 200 small islands, with an area of about 6,500 square miles. They are destitute of trees, but nearly covered with peat bogs. Large herds of cattle and horses roam wild. They contain many fine harbors, and are valuable as places of refuge for ships frequenting the southern seas. They were erected into a British colony in 1833, and contain about 1,800 inhabitants. *Stanley* (694) is the capital.

South Georgia is an uninhabited island, lying about 800 miles south-easterly from the Falklands, of which colony it forms a part. Area, 1,570 square miles.



Rounding Cape Horn.



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EUROPE.

Area, 3,555,000 square miles; population, 360,200,000; persons to square mile, 101.

Europe is bounded on the north by the Arctic Ocean; on the west by the Atlantic Ocean; on the south by the Mediterranean Sea, the Sea of Marmora, the Black Sea, and Mount Caucasus; and on the east by the Caspian Sea, the Ural River, and Ural Mountains, which separate it from Asia.

Although the smallest of the great divisions of the earth in extent, it is second in population, and by far the most important in power and influence, as well as the most advanced in learning, arts, and manufactures.

The surface of Europe is divided by mountain ranges into a north-west and south-east slope, as all the great rivers on the continent flow in these directions. The north and east, with the exception of Norway and Sweden, consist of a vast plain, with occasional small elevations, and comprise about two-thirds of the whole surface, extending from Holland to the Ural Mountains, and including all Russia; in the south and west it is mountainous or hilly.

Unlike the mountain ranges of the New World, those of Europe occur in smaller and more detached chains. The principal are:

The *Dovrefield* mountains, in the Scandinavian peninsula; the *Grampians*, in Scotland; the *Pennine Range*, in England, and *Cambrian Range*, in Wales; the *Alps*, in Switzerland and the adjacent countries; the minor ranges of the *Jura*, and the *Cevennes* mountains, in France; the *Pyrenees*, between France and Spain; and the parallel ranges of the *Castile*, *Morena*, and *Sierra Nevada* mountains, in Spain; the *Apennines*, in Italy, with the volcanoes, Vesuvius near Naples, and Etna in Sicily; the *Balkan*, in Turkey; the *Carpathian*, in Austria, with the smaller ranges of the *Black Forest*, *Harz*, *Erz*, and *Sudetic Chains*, in Germany; the *Caucasus*, between the Black and Caspian Seas; and the *Ural Mountains*, between Europe and Asia.

The principal Rivers of Europe are:

Those flowing north-west or west—the *Petchora*, *Dvina*, *Vistula*, *Oder*, *Elbe*, *Rhine*, *Seine*, *Loire*, *Garonne*, *Douro*, *Tagus*, and *Guadiana*; those flowing south and east—the *Ebro*, *Rhone*, *Po*, *Danube*, *Dnieper*, *Pruth*, *Don*, and *Volga*, and the *Thames* in England.

The **Volga** is the largest river of Europe, rising in the Valdai hills, in the north-west of Russia, and flowing into the Caspian Sea, after a course of about 2,200 miles.

The Lakes in Europe are generally small, but celebrated for their beautiful scenery. The principal are:

Wener and *Wetter*, in Sweden; *Ladoga*, *Onega* and *Saima*, in Russia; *Geneva* and *Constance*, in Switzerland; *Maggiore* and *Como*, in Italy; *Derwentwater* and *Windermere*, in England: *Lomond* and *Katrine*, in Scotland; and *Neagh* and *Killarney*, in Ireland.

Europe is remarkable for the irregularity of its outline or coast, having numerous islands, peninsulas, seas, bays, and gulfs, giving it about 18,000 miles of coast-line—a very much greater length, in proportion to its size, than is possessed by any of the other great divisions of the globe. Almost every country in Europe has some sea-coast, and nowhere, except in the east of Russia, is there any place more than 400 miles distant from the sea.

The principal Islands are:

In the Arctic Ocean, *Nova Zembla* and *Spitzbergen*.

In the Baltic, *Zealand*, *Funen*, *Gothland*.

In the Atlantic, *Iceland*, *Great Britain*, *Ireland*, the *Orkney*, *Shetland*, *Hebrides* and *Azores*.

In the Mediterranean, *Majorca*, *Minorca*, *Ivica*, *Sardinia*, *Corsica*, *Sicily*, *Malta*, *Ionian Isles*, *Crete*, and *Eubœa* or *Negropont*; and the *Cyclades*, in the Grecian Archipelago.

The principal Peninsulas are:

In the north, *Scandinavia* (Norway and Sweden), and *Jutland*, in Denmark.

In the south, the *Iberian* (Spain and Portugal), *Italy*, the *Morea*, in Greece, and the *Crimea*, in the south of Russia.

The principal Isthmuses are:

Corinth, joining the Morea to the mainland of Greece; and *Perekop*, joining the Crimea to Russia.

The principal Seas and Gulfs are:

In the north, the *White Sea*, the *Baltic Sea*, with the *Gulfs of Bothnia*, *Finland*, and *Riga*, the *Cattegat* and *Skager Rack*, and the *North Sea*, or German Ocean.

In the west, the *Irish Sea* and *Bay of Biscay*.

In the south, the *Mediterranean Sea*, the *Gulfs of Lyons*, *Genoa*, and *Taranto*, the *Adriatic Sea*, with the *Gulf of Venice*, *Sea of Marmora*, *Black Sea*, and *Sea of Azov*.

The principal Straits and Channels are:

In the north, the *Sound*, *Great Belt*, and *Little Belt*.

In the west, the *Strait of Dover* and *English Channel*, *St. George's* and *North Channels*.

In the south, the *Straits of Gibraltar*, *Bonifacio*, between Corsica and Sardinia, *Messina*, *Dardanelles*, the *Bosphorus*, or Strait of Constantinople, and *Kertch* or *Yenikale*.

The principal Capes are:

In the north, *North Cape*, *Naze*, and *Skaw*.

In the west, *Duncansby Head*, *Wrath*, *Clear*, *Land's End*, *La Hogue*, *Ortegal*, *Finisterre*, and *St. Vincent*.

In the south, *Tarifa*, *Passaro*, *Spartivento*, and *Matapan*.

The **climate** of Europe is warmer than that of the other great divisions of the globe in the same latitude, and not subject to the same extremes of heat and cold, owing

mainly to the influence of the Gulf Stream, prevailing winds from the south-west, and to the greater part of it being so near the sea. In the west it is more moist than in the east; and although cold in the north, it is in general mild and salubrious, and in the south warm and delightful. The soil, especially in the south, is fertile; and is everywhere, except in portions of Russia, most industriously cultivated. Wheat is grown as far north as the middle of Norway, and barley much farther north; in the middle latitudes all kinds of grain grow in abundance; and in the south the vine, olive, orange, fig, and other southern fruits flourish. Europe also contains great quantities of valuable minerals—iron, lead, copper, tin, coal, and salt being found in almost every part.

Very few wild animals are found in Europe, the principal being the bear, wolf, and wild boar; but useful animals, such as the horse and ox, are very numerous. It has a great variety of birds of song; in the north, aquatic birds abound; and in the mountain regions, eagles and other birds of prey are found. The seas abound with valuable fish, including cod, herring, and salmon; whales also are numerous. In the Mediterranean the anchovy and other small but delicate fish abound.

The **commerce** of Europe is greater than that of any of the other divisions of the globe, although it is the smallest in area. This is owing in a great measure to its vast extent of coast-line, its large population, and its valuable mineral resources, but chiefly to the energy and advanced civilization of the people.

The **inhabitants** of Europe are of the Caucasian race, forming four branches—the Celtic in the west; the Teutonic, including the Scandinavian, German, and Anglo-Saxon in the middle and north; the Græco-Latin in the south; and the Sclavonic in the east. The Christian is the prevailing religion, under the three forms of the Protestant, Roman Catholic, and Greek Churches; except in Turkey, where the principal religion is the Mohammedan.

The Animals of Europe are:

1. Ermine. 2. Sable. 3. Snowy Owl. 4. Reindeer. 5. Barn Owl. 6. Elk. 7. Wolf. 8. Fox. 9. Brown Bear. 10. Ibex. 11. Chamois. 12. Wild Boar. 13. Lammer-geier.

To the Teacher.—The sable, a species of marten, is found in Europe only in north-eastern Russia, though the common marten is of very general distribution throughout all northern Europe.

Of the larger and more formidable European animals, the principal are: the white bear, found on the Arctic coasts; the brown bear, found in the Pyrenees, the Carpathians, the Dovrefield Mountains, and occasionally in the Alps; the grey wolf and the black wolf, once numerous all over Europe, now confined to the wilder parts of the east and south, but still numerous; the jackal, found in Russia, Turkey, and Greece; the common fox, of almost universal distribution; the blue fox, found only in the Arctic regions; the lynx, found only in mountainous districts and in the north; and the wild boar, found in all southern uninhabited districts. Smaller and less formidable animals, many of them exceedingly numerous and of general distribution, are the hedgehog, the badger, the glutton, the mole, the weasel, the civet, the lemming (remarkable for its strange periodical migrations), the jerboa, the rat, the mouse, the marmot (or European woodchuck), the porcupine, the hare, and the squirrel. Harmless animals, which, however, are pursued by man, are the elk, found in Scandinavia, Russia, and Poland (south-western Russia); the aurochs, urus, or wild ox (from which it is said our domestic ox is descended), found only in Poland; the musmon, or wild sheep, found in Spain, Sardinia, and Corsica; the antelope, found in the countries north of the Black Sea; the ibex, found in the Alps and Carpathians; the chamois (from which the useful chamois or "shammy" skin is obtained), quite common in all Alpine regions; the fallow deer, found wild in Spain; and the red deer and roebuck, found in the Highlands of Scotland, Spain, and Germany. Fur-bearing animals, like the ermine or the marten, exist only in the north; and the beaver, once very abundant throughout almost all the continent, is rapidly disappearing before the advance of civilization, and is now found, and rarely, only in central Europe. The walrus, found in our own Arctic waters, is also found on the island of Spitzbergen. Seals, though becoming scarcer, are found on the shores of all European seas, including the Baltic and the Caspian. Whales and rorquals (though not so frequent as formerly) are found in northern and western waters; and dolphins and porpoises are to be seen in all the seas. Two animals may be especially mentioned—the Italian sorex or shrew, a little burrowing, insect-eating creature, the smallest quadruped in the world; and the Gibraltar monkey, the only species of the monkey tribe found in Europe.

In the number and variety of its birds Europe is surpassed only by tropical America. The north abounds in aquatic birds, as storks, herons, plovers, curlews, geese, ducks, and swans; in the south are found the pelican, spoonbill, and flamingo. Birds of prey are numerous.

British Houses of Parliament

The Countries of Europe are:

Great Britain and Ireland.	Germany.
Norway and Sweden.	Austria-Hungary.
Russia.	Italy.
Denmark.	Switzerland.
Holland.	Turkey in Europe.
Belgium.	Roumania.
France.	Servia.
Spain.	Montenegro.
Portugal.	Greece.

Great Britain, France, Russia, Germany, and Austria are considered the five great Powers of Europe; and the kingdom of Italy, although formed only in 1859, is gradually gaining a position scarcely secondary to them.

BRITISH EMPIRE.

The **British Empire** is composed of the United Kingdom of Great Britain and Ireland, and of numerous colonies and possessions in every quarter of the globe. The British Islands consist of Great Britain, including England, Wales, and Scotland; Ireland lying to the west of Great Britain; and a number of small islands adjoining them.

The British Colonies and Possessions are:

In Europe.

Gibraltar, an important fortress at the southern extremity of Spain, commanding the entrance to the Mediterranean.

Malta, with the small islands of Gozo and Cumino, in the Mediterranean.

In North America.

The Dominion of Canada.
Newfoundland.
Bermudas.
British Honduras, in Central America.
The West India Islands, including the Bahamas, Jamaica, Leeward Island Windward Islands, and Trinidad.

In South America.

British Guiana.
The Falkland Islands and South Georgia.

In Asia.

India, comprising the eight Provinces of Bengal, Burmah, Assam, North-west Provinces, Punjab, Central Provinces, Madras, and Bombay

Baluchistan and Sikkim, partly under British rule.

Ceylon, an important island at the south-eastern extremity of India

Andaman, Nicobar, and Laccadive Islands.

Hong Kong, an island at the mouth of the Canton River.

The "Straits Settlements," including the Islands of Singapore and Penang, and Wellesley province, and a part of the Malacca peninsula.

Borneo, northern part.

Labuan Island, off the coast of Borneo, and Sarawak, in the north-west of that island.

Aden, an important town at the entrance of the Red Sea.

ENGLAND & WALES
ENGLISH MILES
0 10 20 30 40 50 60 70 80 90 100
Battlefields
Firth of Forth
EDINBURGH
Dunbar
Berwick upon Tweed
HOLY I. OR LINDISFARNE
FARNE IS.
COQUET I.
Greenock
Glasgow
Paisley
BUTE
ARRAN
ISLAY
CANTIRE
Firth of Clyde
Kilmarnock
Ayr
Hawick
Cheviot Hills
NORTHUMBERLAND
Morpeth
Blyth
N Shields & Tynemouth
S Shields
Newcastle
Dumfries
I. Ryan
Carlisle
Sunderland & Wearmouth
Durham
Hartlepool
Stockton
Whitby
Middlesboro
Solway Firth
CUMBRIAN MTS.
Skiddaw
Helvellyn
Scaw Fell
Cross Fell
DURHAM
WEST-MORELAND
Appleby
Richmond
NORTH YORK MOORS
N Allerton
Scarborough
Filey
Thirsk
Ripon
Malton
Bridlington
Flamborough Hd.
Bridlington B.
St. Bees Hd.
Whitehaven
Workington
Cockermouth
Keswick
Ullswater
Windermere
Kendal
Coniston
I. OF MAN
Ramsey
Peel
Castletown
Douglas
Snae Fell
Whernside
Ure R.
Swale R.
Ouse R.
Nidd R.
Penygent
Ingleboro
Lancaster
WALNEY I.
Morecambe B.
Fleetwood
Harrogate
York
Stamford Br
Beverley
Hornsea
Hull
Patrington
Spurn Hd.
Humber R.
Saltfleet
THE WOLDS
Grimsby
Louth
Skegness
Boston
The Wash
Wells next the Sea
Cromer
Holkham
North Walsham
Aylsham
Norwich
Yarmouth
Lowestoft
Thetford
Beccles
Bungay
Waveney R.
NORFOLK
Lynn
Downham
Swaffham
Dereham
Fakenham
Wells
Holt
Cromer
Sheringham
Aylsham
Norwich
Yare R.
Wensum R.
Bure R.
Ouse R.
Great Ouse R.
Lark R.
Little Ouse R.
Brandon
Thetford
Newmarket
Bury St Edmunds
SUFFOLK
Woodbridge
Aldeburgh
Ipswich
Sudbury
Saffron Walden
Colne R.
Stour R.
Harwich
The Naze
Colchester
ESSEX
Chelmsford
Maldon
Southend
Romford
Barking
Woolwich
Greenwich
Deptford
Lambeth
Kensington
Hammersmith
Chiswick
Brentford
Richmond
Kingston
Croydon
Sutton
Wimbledon
Epsom
Guildford
Dorking
Reigate
Tunbridge Wells
Tonbridge
Maidstone
Chatham
Rochester
Gravesend
Dartford
Sheerness
Whitstable
Margate
Ramsgate
Deal
Dover
Canterbury
Ashford
Folkestone
Hythe
Romney
Rye
Hastings
St Leonards
Pevensey
Eastbourne
Beachy Hd.
Brighton
Worthing
Littlehampton
Bognor
Selsey Bill
Chichester
Arundel
Petersfield
Portsmouth
Southampton
Winchester
Salisbury
Andover
Basingstoke
Newbury
Reading
Windsor
Staines
Uxbridge
Harrow
Barnet
Hertford
St Albans
Luton
Hitchin
Bedford
Northampton
Cambridge
Huntingdon
Kettering
Wellingborough
Rugby
Coventry
Daventry
Towcester
Banbury
Oxford
Abingdon
Wantage
Faringdon
Swindon
Marlborough
Devizes
Trowbridge
Westbury
Frome
Wells
Bath
Bristol
Chepstow
Monmouth
Newport
Cardiff
Llandaff
Abergavenny
Tredegar
Merthyr Tydfil
Pontypridd
Neath
Swansea
Llanelly
Carmarthen
Haverford West
Milford Haven
Pembroke
Tenby
St Brides B.
Aberaeron
Aberystwith
Cardigan
Cardigan Bay
Barmouth
Dolgelly
Bala
Pwllheli
Braich-y-Pwll
BARDSEY I.
Port Madoc
Menai Str.
Snowdon
Carnarvon
Bangor
Conway
Llandudno
Great Ormes Hd.
ANGLESEY
Amlwch
Holyhead
Beaumaris
Denbigh
Ruthin
Mold
Wrexham
Flint
Holywell
St Asaph
Rhyl
Chester
Nantwich
Crewe
Northwich
Runcorn
Warrington
St Helens
Wigan
Manchester
Liverpool
Birkenhead
Formby Pt.
Southport
Preston
Blackburn
Burnley
Rochdale
Bolton
Bury
Oldham
Halifax
Bradford
Keighley
Skipton
Clitheroe
Colne
Wyre R.
Ribble R.
Lune R.
Kent R.
Leeds
Dewsbury
Wakefield
Pontefract
Goole
Selby
Towton
Saddleworth
Huddersfield
Barnsley
Doncaster
Rotherham
Sheffield
Chesterfield
Peak
Matlock
Derby
Belper
Ashbourne
Dove R.
Trent R.
Mansfield
Worksop
Retford
Gainsborough
Lincoln
Grantham
Sleaford
Boston
Spalding
Stamford
Peterborough
Whittlesea
Ely
Isle of Ely
Wisbech
Downham
Swaffham
Thetford
Newmarket
Cambridge
Saffron Walden
Bishop's Stortford
Hertford
Ware
Hoddesdon
Waltham
Epping

Perim, an island at the entrance of the Red Sea.

Bahrein Islands, a group in the Persian Gulf.

Cyprus, an island belonging to Turkey, but occupied and governed by Britain.

In Africa.

Cape Colony and Natal, at the southern extremity.
Basuto Land, north-east of Cape Colony.
Bechuana Land, north of Cape Colony.
British East Africa, on the Zanzibar coast.
Mauritius Island and its dependencies.
Seychelles Islands.
Ascension and St. Helena Islands, in the Atlantic.
Niger Territories.
Sierra Leone, and various settlements on the Gold Coast and the Gambia.
Zambesia, Nyassaland, Zanzibar, and Zululand.

In Australasia.

Australia, comprising West Australia, Queensland, South Australia, New South Wales, and Victoria; Tasmania, New Zealand; New Guinea, south-east part; Norfolk Island and the Fiji Islands.

The **British Isles**, with these numerous and extensive colonies and possessions, cover an area of nearly 11,500,000 square miles, with a population of over 379,000,000; so that, although small in the extent of home territory and population, Great Britain is the most important country in the world, ruling over about one-sixth of the whole land surface of the globe, and one-fifth of its population.

It is also the first country in the world for commerce and manufactures, exporting annually goods to the value of 2,500,000,000 dollars, consisting chiefly of cotton, woollen, and iron manufactures, and importing annually to the amount of 2,274,000,000 dollars. The great wealth of Britain is derived from its mines and manufactures. Its coal and iron mines are almost inexhaustible; and its lead, copper, and tin mines are very extensive. The cotton manufacture alone employs 500,000 persons, and it is estimated that four millions of people derive their support from the trade connected with it.

As a consequence of the extensive commerce, the facilities for internal communication are great. Over 20,000 miles of railway are now completed, and canals connect many important points. The number of vessels belonging to Great Britain is nearly 22,000, of which 7,500 are steam-vessels; the number of seamen employed is about 250,000. The British navy is almost as powerful as all the other navies of the world put together, although the vessels are not so numerous. The annual revenue of Great Britain is 446,000,000 dollars, not including that of India or other colonies, and is equal to a fourth of the revenue of all the States of Europe. The national debt amounts to nearly 3,400,000,000 dollars, and has been contracted chiefly in various European wars.

Many of the advantages enjoyed by Great Britain are derived from the excellence of the system of government, which is perhaps the most perfect in existence, combining, in a great measure, the advantages of other forms, without their defects. It is a limited monarchy. The Sovereign is the head of the State, and carries on the government through her ministers, who must also possess the confidence of the people, as represented by the House of Commons, and of the aristocracy and clergy, as represented by the House of Lords. No law can take effect without receiving the sanction of the Sovereign and of both Houses of Parliament.

ENGLAND AND WALES.

Area (including the Isle of Man and the Channel Islands), 58,481 square miles, rather more than twice the size of New Brunswick; population, 29,150,000; persons to square mile, 500.

England and **Wales** occupy the southern portion of the island of Great Britain. England is bounded on the north by the River Tweed, Cheviot Hills, and Solway Firth, which separate it from Scotland; on the west by the Irish Sea and St. George's Channel; on the south by the English Channel; and on the east by the North Sea.

England is divided into 40 counties or shires, and **Wales** into 12.

The Counties of England are:

Counties.	*Principal Towns.*
	Six Northern.
Northumberland	Newcastle, Berwick, Alnwick.
Cumberland	Carlisle, Whitehaven, Penrith.
Westmoreland	Appleby, Kendal.
Durham	Durham, Gateshead, South Shields, Middlesboro', Sunderland, Stockton.
Yorkshire	York, Leeds, Huddersfield, Sheffield, Hull, Bradford, Halifax.
Lancashire	Liverpool, Manchester, Salford, Blackburn, Preston, Barrow-in-Furness, Oldham, Bolton, Barnsley, Rochdale, St. Helen's, Bury, Wigan, Warrington.
	Six Southern.
Kent	Maidstone, Canterbury, Dover, Chatham.
Sussex	Brighton, Chichester, Lewes, Hastings.
Hampshire	Winchester, Portsmouth, Southampton.
Dorsetshire	Dorchester, Weymouth, Poole.
Devonshire	Exeter, Plymouth, Devonport.
Cornwall	Falmouth, Truro, Bodmin.
	Four Western.
Cheshire	Chester, Birkenhead, Stockport, Macclesfield.
Shropshire	Shrewsbury, Ludlow, Bridgenorth.
Herefordshire	Hereford, Leominster.
Monmouthshire	Monmouth, Newport, Chepstow, Abergavenny.
	Four Eastern.
Lincolnshire	Grimsby, Boston, Lincoln, Stamford.
Norfolk	Norwich, Yarmouth, Lynn.
Suffolk	Ipswich, Bury St. Edmund's, Sudbury.
Essex	Chelmsford, Colchester, Harwich, West Ham, Leyton.

Ten North Midland.

Counties.	*Principal Towns.*
Nottinghamshire	Nottingham, Newark.
Derbyshire	Derby, Chesterfield.
Staffordshire	Stafford, Walsall, Hanley, Wolverhampton, Stoke, West Bromwich.
Worcestershire	Worcester, Dudley, Kidderminster.
Warwickshire	Warwick, Birmingham, Aston, Coventry, Lichfield, Stratford-on-Avon.
Leicestershire	Leicester, Loughborough.
Rutlandshire	Oakham.
Northamptonshire	Northampton, Peterborough.
Huntingdonshire	Huntingdon, St. Ives, St. Neot's.
Cambridgeshire	Cambridge, Ely, Newmarket.

Ten South Midland.

Gloucestershire	Gloucester, Bristol, Cheltenham, Stroud.
Oxfordshire	Oxford, Woodstock.
Buckinghamshire	Buckingham, Aylesbury, Eton.
Bedfordshire	Bedford, Dunstable.
Hertfordshire	Hertford, St. Alban's.
Middlesex	London, Tottenham, Willesden.
Surrey	Croydon, Guildford, Southwark, Kingston.
Berkshire	Reading, Windsor.
Wiltshire	Salisbury, Devizes.
Somersetshire	Bath, Taunton, Bridgewater, Bridport.

The Counties of Wales are:

Six in North Wales.

Counties.	*Principal Towns.*
Flintshire	Mold, Holywell, St. Asaph.
Denbighshire	Denbigh, Ruthin.
Carnarvonshire	Carnarvon, Bangor.
Anglesey	Beaumaris, Holyhead.
Merionethshire	Dolgelly, Bala.
Montgomeryshire	Montgomery, Welshpool, Newton.

Six in South Wales.

Radnorshire	New Radnor, Presteign.
Cardiganshire	Cardigan, Aberystwith.
Pembrokeshire	Pembroke, Haverfordwest, Milford.
Carmarthenshire	Carmarthen, Llanelly.
Brecknockshire	Brecon.
Glamorganshire	Cardiff, Swansea, Merthyr-Tydvil, Ystradyfodwg.

The **surface** of England is generally level or gently undulating, and the hills rise to no great height; while that of Wales is mountainous. The principal mountains are the *Pennine* range in the north, extending from the Cheviot Hills to the *Peak* in Derbyshire; the *Cumbrian* group, between the Pennine range and the Irish Sea, enclosing the beautiful lakes, *Windermere*, *Ulleswater*, and *Derwentwater*, so celebrated for their picturesque scenery; the *Cambrian* mountains, occupying the greater part of Wales; and the *Devonian* range, extending from Somerset, through Devonshire and Cornwall. *Skawfell*, in the Cumbrian range, rises 3,300 feet, and *Snowdon*, in Wales, 3,590 feet; they are the highest summits in England and Wales. Besides these, there are a large number of smaller hills, as the *Malvern*, *Mendip*, and *Cotswold* hills, near the mouth of the Severn; the *Dorset* hills, and others.

The **rivers** are numerous, and although short, are valuable for navigation. The principal are the *Medway*, *Thames*, *Trent*, *Ouse*, *Humber*, *Tees*, *Tyne*, and *Great Ouse*, flowing into the North Sea; the *Mersey*, and the *Severn* with its tributaries the *Wye* and *Avon*, flowing into the Irish Sea and Atlantic Ocean.

The **coast-line** is much broken, the rivers widening at their mouths, and forming excellent harbors. Besides the mouths of the rivers, there are on the east, the *Wash;* the *Yarmouth Roads*, off the coast of Norfolk; and the *Downs*, off Kent, protected by sand-banks, and affording secure anchorage to shipping. On the south, the *Strait of Dover*, 21 miles across, separates England from France; and on the coast are *Southampton*, *Weymouth*, *Plymouth*, and *Falmouth* harbors. On the west are the *Bristol Channel*—with a number of excellent harbors—*Cardigan Bay*, *Milford Haven*, *Morecambe Bay*, and *Solway Firth.*

The principal **capes** are: on the east, *Flamborough Head*, *Spurn Head*, the *Naze*, *North* and *South Foreland;* on the south, *Beachy Head*, the *Needles*, off the Isle of Wight, *Portland Point*, *Lizard Point*, and *Land's End;* on the west, *St. David's Head* and *Holyhead.*

The **islands** are: *Man*, *Anglesey*, and *Holyhead*, on the west; the *Scilly Islands*, *Channel Islands* (including *Jersey*, *Guernsey*, *Alderney*, and *Sark*), and the *Isle of Wight*, on the south; *Thanet* and *Sheppey*, off the coast of Kent; and *Holy Island*, on the north-east.

The Isle of Wight, the Channel Islands, and Isle of Man are important islands. Near *Cowes*, in the Isle of Wight, is Osborne House, a favorite residence of the Queen. *St. Helier*, in Jersey, contains 35,000 inhabitants. *St. Pierre*, in Guernsey, *Ryde* and *Newport*, in the Isle of Wight, and *Douglas* and *Ramsay*, in the Isle of Man, are large towns. Anglesey is joined to the mainland by the Menai Suspension Bridge, stretching across the Menai Strait.

The **climate** of England is damp and changeable, but healthy, and the soil fertile and well cultivated. The prevailing westerly winds bring a great deal of moisture from the Atlantic Ocean, causing an almost perennial verdure; and, owing to its insular position, the extremes of heat and cold are not nearly so great as in the same latitude on the continent.

The English are chiefly of the Anglo-Saxon race, with some proportion of Danish and Norman-French; the Welsh are Celts, descended from the ancient inhabitants of Britain.

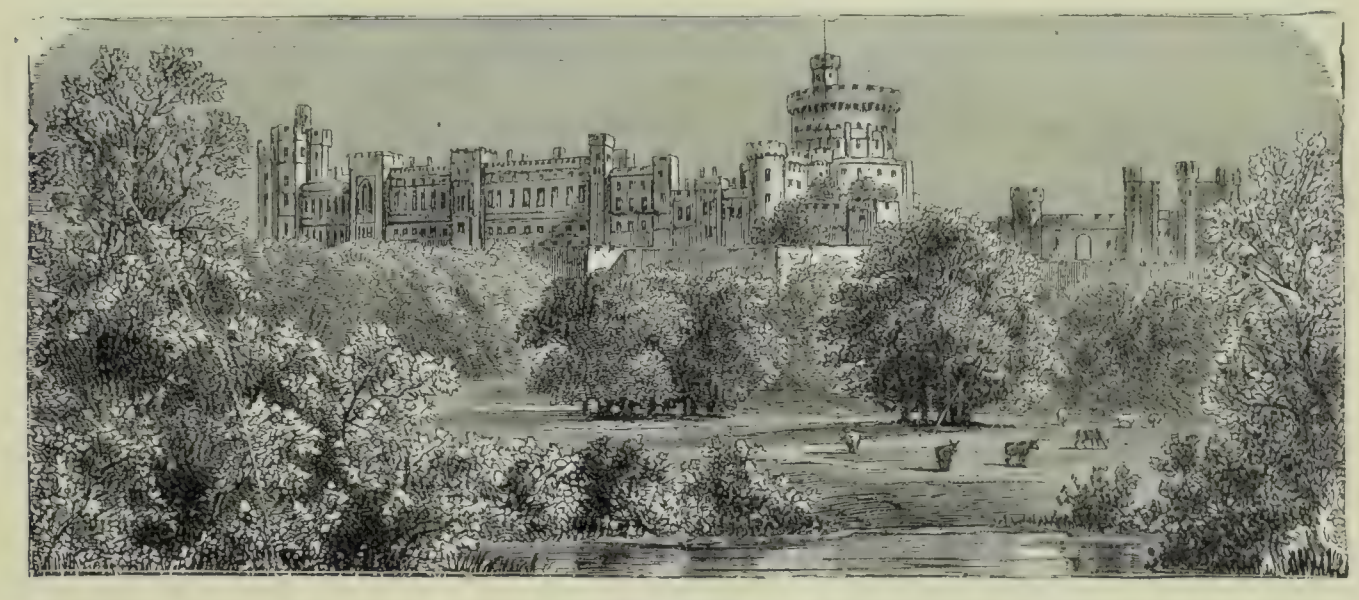
No country in the world contains so many large cities within the same compass. The principal in England are: *London* (4,220,000), the capital of Great Britain and Ireland, on the Thames, about 50 miles from its mouth. It is the largest, most wealthy, and most populous city in the world.

It includes the City proper and Westminster in Middlesex, with Southwark and Lambeth in Surrey, on the opposite side of the Thames, which is spanned by a number of beautiful and massive bridges. It is nearly 10 miles long by 7 broad, and is gradually extending, and including large villages which a few years ago were surrounded by fields. London is nearly in the centre of the land portion of the globe, and is the great emporium of the world for wealth and commerce. Some of the principal buildings are Buckingham Palace, the Tower, St. Paul's Cathedral, Bank of England, Westminster Abbey, and Houses of Parliament. Near London are *Greenwich*, with its celebrated Observatory and Hospital for sailors; *Kew* and *Richmond*, with magnificent gardens; *Hampton Court* and *Windsor*, with royal palaces; and many other places of present or historic interest.

Manchester (505,350), with *Salford* (198,136), is the centre of the cotton-manufacturing trade, and the second city in population; *Oldham* (132,000), *Preston* (107,500), *Bolton* (115,000), *Stockport*, *Rochdale*, and other cities, have large cotton manufactures.

Birmingham (429,200) is celebrated for the extent, variety, and excellence of its metallic manufactures; *Aston* (69,000) is a flourishing suburb; *Sheffield* (324,000) is noted for cutlery, hardware, and plated goods. *Dudley*, *Walsall*, and *Wolverhampton* are the chief seats of the iron trade; and *Newcastle* (186,345), *Sunderland*, and *Shields* of the coal trade.

Leeds (368,000) is the chief centre for the woollen manufactures, which are also largely carried on in *Bradford* (216,000), *Halifax*, and *Huddersfield*; *Nottingham* (212,000) is celebrated for its lace manufactures; *Macclesfield*, *Derby*,



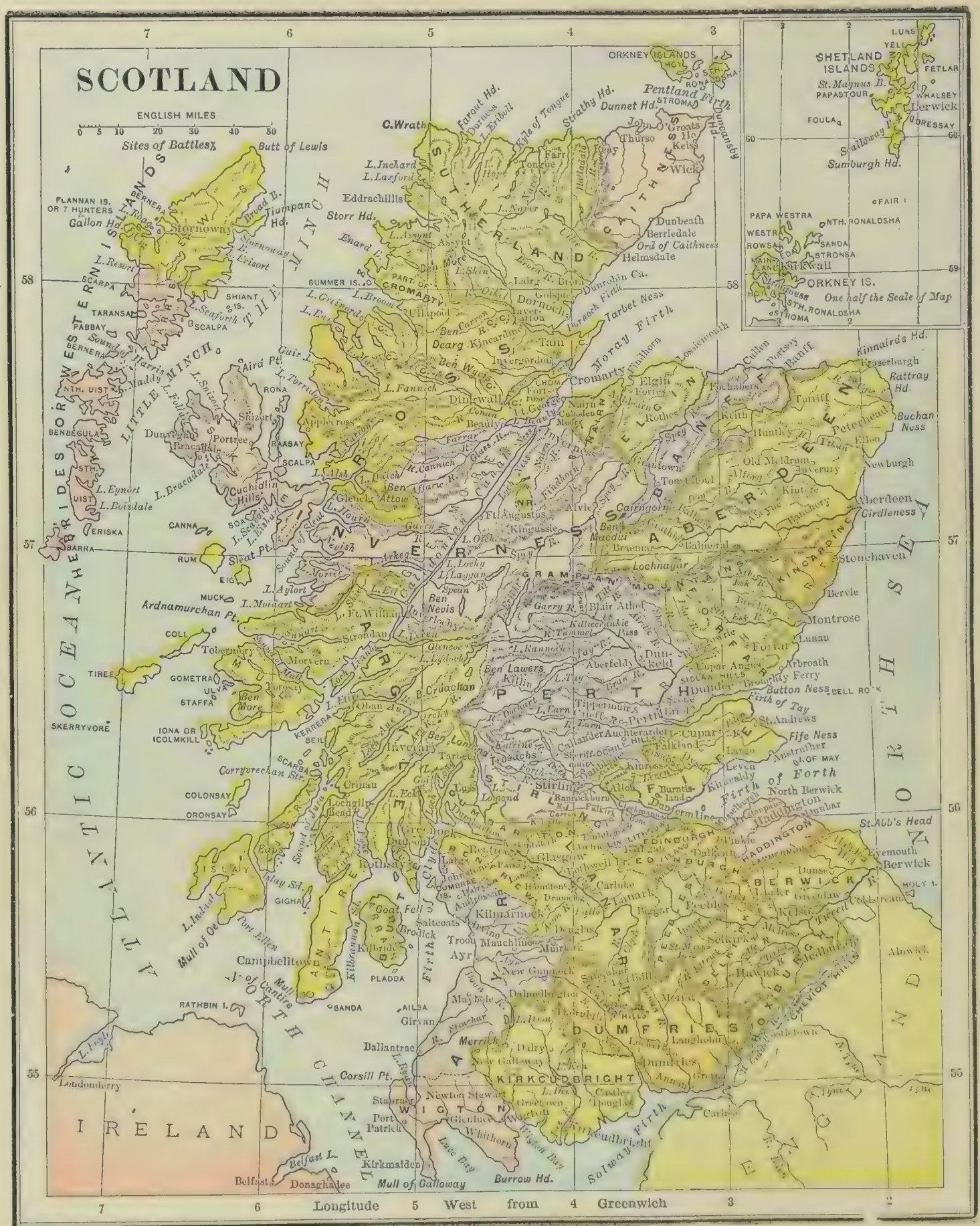
Windsor Castle.

Liverpool (518,000), on the Mersey, next to London in commerce and wealth, is famous for the vast extent of its docks, covering nearly 19 miles of quay space. It is the great emporium for trade with America, the West Indies, and Ireland. The other principal ports are: *Birkenhead* (100,000), opposite Liverpool; *Hull* (200,000), on the Humber; *Southampton* (66,000); *Bristol* (221,665), on the Avon, near Bristol Channel; *Newcastle* (186,500), on the Tyne; *Sunderland* (131,000), on the Wear; *Stockton*, on the Tees; *Yarmouth*, *Plymouth*, *Falmouth*, and *Dover*. *Portsmouth* (159,200), is strongly fortified, and is the principal dockyard and station for the British navy. *Plymouth* and *Devonport*, on the south coast, and *Chatham*, *Sheerness*, *Woolwich*, and *Deptford*, on the Thames, have also extensive dockyards. Woolwich has the largest arsenal and manufactories of war materials in Great Britain.

and *Coventry* for silks; *Kidderminster* for carpets; *Worcester* for porcelain; *Stoke*, *Hanley*, and *Newcastle-under-Lyme* for pottery; *Canterbury* and *York* are distinguished for their magnificent cathedrals, and as the seats of the archbishoprics; *Oxford* and *Cambridge* for their celebrated universities and magnificent buildings.

Lancashire is the chief county for cotton manufactures; *Yorkshire* for woollens; *Staffordshire* for pottery; *Durham* and *Northumberland* for coal mines; *Cornwall* and *Devon* for tin and copper; the counties of *Wales* for iron and coal.

Merthyr-Tydvil (58,000) is distinguished for its extensive coal mines and iron works. *Ystradyfodwg* (88,500) is in Glamorganshire. *Cardiff* (129,000) is the great shipping port for coal, and *Swansea* (91,000) is famous for its smelting works. *Pembroke* has a Government dockyard, and *Milford Haven* a magnificent harbor.


SCOTLAND
ENGLISH MILES
0 5 10 20 30 40 50
Sites of Battles
SHETLAND ISLANDS
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NORTH SEA
IRELAND
Canada Publishing Co., Toronto.

SCOTLAND.

Area, 30,417 square miles, rather larger than New Brunswick and Prince Edward Island; population, 4,033,000; persons to square mile, 132½.

Scotland forms the northern part of the island of Great Britain, and is bounded on the north by the Atlantic Ocean; on the west by the Atlantic Ocean and North Channel; on the south by England; and on the east by the North Sea.

PASSAGE WORN BY WAVES THROUGH HARDEST ROCKS (North of Scotland).

It is divided into 33 counties or shires.

Eleven Northern.

Counties.	*Principal Towns.*
ORKNEY and SHETLAND	Kirkwall, Stromness, Lerwick.
CAITHNESS	Wick, Thurso.
SUTHERLAND	Dornoch.
ROSS	Dingwall, Tain, Fortrose, Stornoway (Island of Lewis).
CROMARTY	Cromarty.
INVERNESS	Inverness, Portree (Isle of Skye).
NAIRN	Nairn.
ELGIN	Elgin, Forres.
BANFF	Banff, Cullen, Portsoy, Keith.
ABERDEEN	Aberdeen, Peterhead.
KINCARDINE	Stonehaven, Bervie.

Nine Middle.

FORFAR	Forfar, Dundee, Montrose, Arbroath, Brechin.
PERTH	Perth, Crieff, Dunkeld, Dunblane.
FIFE	Cupar, St. Andrews, Dunfermline, Kirkcaldy, Dysart.
KINROSS	Kinross.
CLACKMANNAN	Clackmannan, Alloa.
STIRLING	Stirling, Falkirk, Bannockburn.
DUMBARTON	Dumbarton, Kirkintilloch, Helensburgh.
ARGYLE	Inverary, Campbelton, Oban.
BUTE	Rothesay, Lamlash (Isle of Arran).

Thirteen Southern.

Counties.	*Principal Towns.*
HADDINGTON or EAST-LOTHIAN	Haddington, Dunbar.
EDINBURGH or MID-LOTHIAN	Edinburgh, Leith, Musselburgh, Portobello, Dalkeith.
LINLITHGOW or WEST-LOTHIAN	Linlithgow, Borrowstounness (or Bo'ness), Bathgate.
BERWICK	Greenlaw, Dunse, Coldstream.
ROXBURGH	Jedburgh, Kelso, Hawick, Melrose.
SELKIRK	Selkirk, Galashiels.
PEEBLES	Peebles, Inverleithen.
LANARK	Glasgow, Govan, Lanark, Airdrie, Hamilton.
RENFREW	Renfrew, Greenock, Paisley, Port-Glasgow.
AYRSHIRE	Ayr, Kilmarnock, Irvine, Ardrossan.
DUMFRIES	Dumfries, Annan.
KIRKCUDBRIGHT	Kirkcudbright, New Galloway.
WIGTON	Wigton, Portpatrick.

Scotland is very mountainous, especially in the north and west. The *Grampian Mountains* form the principal chain, and extend from Argyleshire in a north-easterly direction to Aberdeenshire; *Ben Nevis*, the highest summit, rises 4,406 feet above the sea. The north-west is entirely occupied by rugged masses of mountains, and is called the Northern Highlands; the highest summit is *Ben Attow*, 4,000 feet high. The south and east consist chiefly of gently undulating plains, crossed by smaller ranges of hills, as the *Lowther* and *Cheviot Hills* in the south, the *Lammermuir* and *Ochil Hills* in the east, besides other small ranges.

ISLAND DESTROYED BY WAVES (North of Scotland).

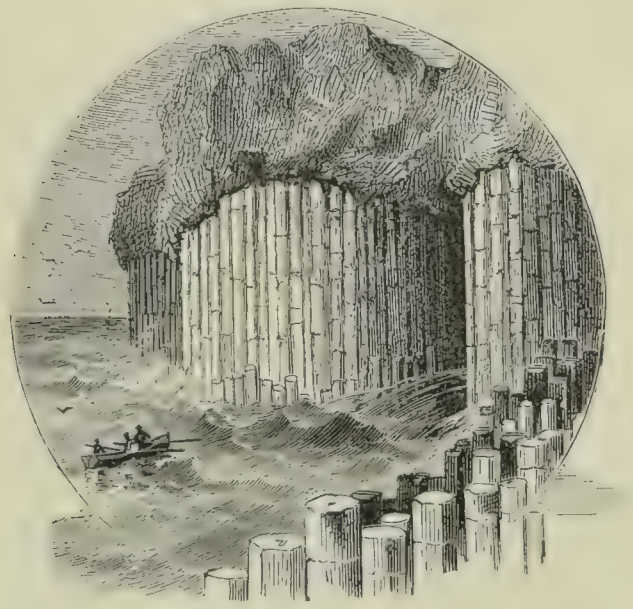
The mountainous country in the north and north-west of Scotland is called the Highlands; the more level country, in the east and south, the Lowlands. The inhabitants of the Highlands are Celts, and still speak the Gaelic language, while those of the Lowlands are chiefly of Saxon origin, like the English.

The general **slope** of the country is easterly from the Highlands, the Clyde being the only river of importance flowing westwards. The principal rivers are: the *Tweed*,

Forth, *Tay*, *Dee*, and *Spey*, flowing east; the *Clyde*, flowing west; and several small rivers, flowing into the Solway Firth.

Scotland abounds with **lakes** celebrated for their picturesque beauty, being generally surrounded by lofty rugged mountains. Among the Grampians are *Loch Lomond*, *Loch Katrine*, *Loch Earn*, *Loch Tay*, *Loch Rannoch*, in Perth; and *Loch Awe*, in Argyle. In the Northern Highlands are *Loch Ness* and *Loch Lochy*, in the great Caledonian valley connecting the Moray Firth with the Atlantic Ocean; and farther north, *Loch Maree*, *Loch Shin*, and *Loch Assynt*; *Loch Ericht* and others in Inverness, and *Loch Leven* in Kinross.

Scotland is remarkable for its irregular **coast-line**, numerous firths and lochs extending deep into the land. The *Firth of Forth* and *Firth of Clyde* almost intersect the



Fingal's Cave, Staffa.

southern part, and are connected by a canal 38 miles long; while the Moray Firth and Loch Linnhe, almost connected by Lochs Ness and Lochy, intersect the northern part. Besides these, on the east are the *Firth of Tay*, *Cromarty Firth* running into *Moray Firth*, and *Dornoch Firth;* on the west are *Loch Broom*, *Loch Fyne*, and *Loch Long;* and on the south *Luce* and *Wigton Bays*, and *Solway Firth*. The sea between the Hebrides and mainland is called the *Minch;* the other channels are the *Little Minch* and sounds of *Sleat*, *Mull*, and *Jura;* and the *Pentland Firth*, between the Orkney Islands and the mainland.

The principal **capes** are: *Duncansby Head*, *Dunnet Head*, and *Cape Wrath*, on the north; *Mull of Cantyre* and *Mull of Galloway*, on the south-west; *Kinnaird's Head*, *Fife Ness*, and *St. Abb's Head*, on the east.

The **islands** on the coast of Scotland are very numerous, but are for the most part rocky and barren, and important chiefly for their fisheries. The principal are the *Shetland* and *Orkney Islands*, on the north; and the *Hebrides*, divided into the *Inner* and *Outer*, and comprising most of the islands on the west coast. The principal in the Outer or Western Hebrides are *Lewis*, and *North* and *South Uist;* in the Inner are *Skye*, *Mull*, and *Islay;* *Arran* and *Bute* are in the Firth of Clyde. *Staffa*, a small island in the Inner Hebrides, is celebrated for its basaltic columns and caverns, the most noted of which is Fingal's Cave.

The climate in the north and west, or mountainous part of Scotland, is generally moist and mild, but the soil is barren, although admirably adapted for grazing; and vast herds of sheep and cattle are reared. In the south and east, *i.e.*, the Lowlands, it resembles England, and is warmer, more fertile, and in a high state of cultivation.

The principal minerals are coal, iron, lead, stone, and slate. The coal region extends across the country from Fifeshire to Ayrshire. Iron is chiefly found in the neighborhood of Glasgow, lead in the Lowther Hills, and slate in Argyleshire.

Cotton, linen, woollen, and iron manufactures are extensively carried on, and the Clyde is celebrated for its iron ship-building trade. The fisheries on the coast and on the islands are important, especially those of the herring and salmon.

Scotland and England were united under one king in 1603, when James VI. of Scotland ascended the throne as James I. of England; the parliaments of the two countries, however, were not united till 1707. The established religion is the Presbyterian, of which there are several branches.

Edinburgh (261,261), the capital, is situated near the Firth of Forth. It is divided into the Old and New Towns. The former is very ancient, and is built on hills, giving it a picturesque appearance; the latter is celebrated for its beauty, and for its numerous fine monuments and public buildings. Edinburgh has long been distinguished as a seat of learning and literature, and it possesses a fine university. It has few manufactures, but carries on an extensive trade through its seaport, *Leith* (70,000). *Glasgow* (793,000), on the river Clyde, is the largest and most important city in Scotland, and the second in Great Britain in population. It carries on large manufactures, and is noted for its iron steamship-building. It possesses a fine cathedral, and is the seat of a university. *Greenock* (69,000), on the Clyde, is an important seaport. *Paisley* (66,500) has extensive cotton and shawl manufactures. *Aberdeen* (122,000) is the principal city in the north, and is built chiefly of granite. It has a large shipping and ship-building trade, and is the seat of a university. Near it is *Balmoral*, the favorite

Highland residence of the Queen. *Kilmarnock* (28,000) and *Dumfries* are manufacturing towns. *Dundee* (156,000), *Arbroath*, and *Montrose* are important seaports, with linen manufactures. *Dunfermline* also has extensive linen manufactures. *Perth* (31,000) and *Stirling* are beautiful towns. Near Perth is Scone, where the Scottish kings were crowned. *Inverness* is the capital of the North Highlands.

IRELAND.

Area, 32,531 square miles, one-fifth less than Newfoundland in size; population, 4,706,162; persons to square mile, 145.

Ireland is an island in the Atlantic Ocean to the west of Great Britain, from which it is separated by the North Channel, the Irish Sea, and St. George's Channel.

It is divided into four provinces—*Ulster*, *Connaught*, *Leinster*, and *Munster*, which are subdivided into thirty-two counties.

Ulster, Nine Counties.

Counties.	*Principal Towns.*
Londonderry	Londonderry, Coleraine.
Donegal	Lifford, Ballyshannon.
Antrim	Belfast, Lisburn, Ballymena, Carrickfergus.
Down	Newry, Downpatrick, Donaghadee.
Armagh	Armagh, Portadown.
Monaghan	Monaghan.
Tyrone	Omagh, Dungannon.
Fermanagh	Enniskillen.
Cavan	Cavan.

Connaught, Five Counties.

Roscommon	Roscommon.
Leitrim	Carrick-on-Shannon.
Sligo	Sligo.
Mayo	Castlebar, Westport.
Galway	Galway, Tuam, Ballinasloe.

Leinster, Twelve Counties.

Dublin	Dublin, Kingstown.
Wicklow	Wicklow, Arklow.
Wexford	Wexford, New Ross.
Kilkenny	Kilkenny.
Carlow	Carlow.
Kildare	Athy, Naas, Maynooth, Kildare.
Queen's County	Maryborough.
King's County	Tullamore, Birr or Parsonstown.
Westmeath	Mullingar, Athlone.
Longford	Longford.
Meath	Trim, Navan.
Louth	Dundalk, Drogheda.

Munster, Six Counties.

Waterford	Waterford, Dungarvan, Lismore.
Tipperary	Clonmel, Cashel, Nenagh, Thurles, Tipperary, Carrick-on-Suir.
Clare	Ennis.
Limerick	Limerick.
Cork	Cork, Queenstown, Bandon, Youghal, Kinsale, Fermoy.
Kerry	Tralee, Killarney, Dingle.

The **surface** of Ireland is generally low: about one-sixth of it is covered with peat bogs. Mountains occur in detached masses, generally near the coast, and most frequently in the north and west. There are numerous beautiful lakes, and the scenery in the mountainous districts is exceedingly varied and picturesque. The principal **mountains** are: *Magillicuddy's Reeks*, with *Carn Tual*, the highest summit, in Kerry County, 3,400 feet; *Mount Nephin* in Mayo, and *Lugnaquilla Mount* in Wicklow. Besides these are the *Donegal*, *Antrim*, and *Connemara Mountains*.

Owing to the level country through which they flow, the rivers of Ireland are slow, and navigable for the greater part of their courses. The principal **rivers** are: the *Shannon*, with its lake expansions; *Loughs Allen*, *Ree*, and *Derg*, flowing west, 224 miles long, and navigable for 213; the *Blackwater*, *Suir*, and *Barrow*, flowing south; the *Liffey* and the *Boyne*, flowing east; the *Bann*, draining *Lough Neagh*, the largest lake in Britain or Ireland; the *Erne*, draining several beautiful lakes; and the *Foyle*, flowing north. The Lakes of Killarney, celebrated for their beautiful scenery, are situated among the mountains of Kerry.

Ireland, like Scotland, is deeply indented with bays and loughs, especially on the west. The principal are: *Loughs Foyle* and *Swilly*, on the north coast; *Donegal*, *Clew*, and *Galway Bays*, *Mouth of the Shannon*, *Dingle*, *Kenmare*, and *Bantry Bays*, on the west coast; *Cork*, *Waterford*, and other harbors on the south; and *Wexford Harbor*, *Dublin*, *Dundalk*, and *Carlingford Bays*, and *Belfast Lough*, on the east coast.

The principal **capes** are: *Howth Head*, near Dublin, on the east; *Fair Head*, *Malin Head*, and *Bloody Foreland*, on the north; *Rossan Point*, *Slyne*, and *Dunmore Heads*, on the west; and *Cape Clear*, and *Carnsore Point*, on the south.

The **climate** of Ireland is mild and healthy, but very moist, owing to the prevailing westerly winds. To its moist climate it owes the beautiful verdure with which the fields are always clothed, and which has caused it to be named the "Emerald Isle." The soil is fertile, but is not so highly cultivated as in Britain. Cereals, flax, potatoes, turnips, and hay are the staple agricultural productions. Cattle are extensively reared, and exported to Britain, as well as all kinds of dairy and farm produce.

Ireland possesses valuable minerals, but these are little wrought. The peat bogs supply valuable fuel, peat being used instead of coal.

The linen manufacture is the chief branch of industry, and is carried on principally in the north.

The native Irish are Celts, but a large part of the population, especially in the north, came originally from England and Scotland. No religion is now established by law, but

IRELAND
ENGLISH MILES
0 5 10 20 30 40 50
Battlefields X
ATLANTIC OCEAN
IRISH SEA
St. George's Channel
North Channel
SCOTLAND
WALES
ULSTER
LEINSTER
MUNSTER
CONNAUGHT
DONEGAL
LONDONDERRY
ANTRIM
DOWN
ARMAGH
TYRONE
FERMANAGH
MONAGHAN
CAVAN
LOUTH
MEATH
DUBLIN
KILDARE
WICKLOW
WEXFORD
CARLOW
KILKENNY
QUEENS CO
KINGS COUNTY
WESTMEATH
LONGFORD
ROSCOMMON
SLIGO
LEITRIM
MAYO
GALWAY
CLARE
LIMERICK
TIPPERARY
KERRY
CORK
WATERFORD
Belfast
Londonderry
Dublin
Cork
Limerick
Galway
Waterford
Kilkenny
Wexford
Sligo
Donegal
Tralee
Ennis
Athlone
Tullamore
Mullingar
Drogheda
Dundalk
Newry
Armagh
Enniskillen
Carrickfergus
Bangor
Portadown
Lisburn
Ballymena
Coleraine
Ballycastle
Larne
Belmullet
Ballina
Castlebar
Westport
Clifden
Roscommon
Longford
Trim
Naas
Arklow
Wicklow
Bray
Howth
Malahide
Skerries
Lambay I.
Ireland's Eye
Dalkey I.
Killiney
Dublin B.
Howth Hd.
Wicklow Hd.
Cahore Pt.
Greenore Pt.
Wexford Haven
Carnsore Pt
Saltees
Tuskar Rk.
Milford Haven
St. Davids Hd.
St. Brides B.
Cable I.
Valentia I.
Dursey I.
Great Blasket I.
Inishturk
Inishbofin
Inishkea Is.
Achil
Achil Hd.
Clare I.
Aran I.
Tory I.
Inistrahull
Rathlin I.
Campbeltown
Arran
Cantire
Mull of Cantire
Firth of Clyde
Mull of Galloway
Port Patrick
Belfast L.
L. Neagh
L. Erne
Upper L. Erne
Lower L. Erne
L. Melvin
L. Gill
L. Allen
L. Arrow
L. Key
L. Gara
L. Conn
L. Corrib
L. Mask
L. Foyle
L. Swilly
L. Ree
L. Gowna
L. Derg
L. Ryan
Lough Foyle
Lough Swilly
Lough Larne
Lough Belfast
Lough Strangford
Lough Carlingford
Lough Dundalk
Lough Ennell
Lough Owel
Lough Sheelin
Lough Derravaragh
Lough Lene
Lough Iron
Lough Ennell
Lough Boderg
Lough Gara
Lough Key
Lough Arrow
Lough Allen
Lough Melvin
Lough Gill
Lough Derg
Lough Ree
Lough Gowna

nearly four-fifths of the population are Roman Catholic. Since the year 1800 the Parliament of Ireland has been united with that of Great Britain. The Queen is represented in Ireland by the Lord-Lieutenant, who resides at Dublin.

Owing to the failure of the potato crop, and to other causes, which led to extensive emigration to America, the population of Ireland has decreased about 3,500,000 in fifty years, or considerably more than one-third of the entire population.

For many years an agitation has been going on in Ireland to obtain what is known as Home Rule, or the right to have a legislature in Dublin, empowered to enact laws relating to Irish local interests.

Dublin (254,709), the capital, is a large and beautiful city, and is celebrated for the number of its fine buildings, its beautiful bay and surrounding scenery. It is the see of an archbishop, the residence of the Lord-Lieutenant, and the seat of three universities. Its trade is carried on chiefly with Liverpool. Near it is *Maynooth*, with a Roman Catholic college.

Belfast (255,896) is one of the most thriving cities in the British Islands. It has risen into importance chiefly within the present century, and is now the first city in Ireland. It is the centre of the linen and sewed muslin trade. *Cork* (75,070), the third city in Ireland, has a magnificent harbor, and is the centre of a large trade. *Galway* is the largest town in Connaught, and possesses an excellent harbor. *Limerick* (37,072) and *Waterford* (21,700) are important towns, with large manufactures. *Londonderry* (32,900), *Newry*, *Dundalk*, *Drogheda*, *Wexford*, and *Sligo* are seaports engaged in the export of provisions. *Kilkenny* and *Clonmel* are the most important inland towns. Near *Coleraine* is the celebrated Giants' Causeway, a mass of basaltic columns extending into the sea.

THE GIANTS' CAUSEWAY.

On the north coast of Antrim is the famous Giants' Causeway, an irregular platform compacted of about 40,000 dark-colored, perfectly formed, polygonal basaltic columns. This platform, starting from the base of a high basaltic cliff, projects like a pier or causeway about 700 feet into the water, and is about 350 feet in breadth, and of varying height, ranging near to 30 feet. Myth ascribes its construction to the labor of giants in ancient days, who desired to construct a road across the sea to Scotland. The island of Staffa, in Scotland, in which is the celebrated Fingal's Cave, is a formation somewhat similar to the Causeway.

SWEDEN AND NORWAY.

Sweden and **Norway** form the peninsula of Scandinavia, situated between the Atlantic Ocean, Baltic Sea, and Gulf of Bothnia, and form one power under the same crown, but with separate governments. They are separted from Denmark by the Skager Rack, Cattegat, and the Sound.

NORWAY.

Area, 124,495 square miles; population, 2,000,000; persons to square mile, 16.

Norway occupies the western part of the peninsula, and extends from the Arctic Ocean to the Skager Rack. It is divided into twenty provinces.

The **surface** is very mountainous, being composed of high mountains or table-lands, extending the whole length of the peninsula, about 1,100 miles, and called the *Kiolen Mountains* in the north, the *Dovrefield Mountains* in the middle, and the *Hardangerfield Mountains* in the south. These mountains rise chiefly from high plateaus, and are most abrupt and precipitous on the west, where they sometimes form the sea-coast, and in Sweden decline more gradually towards the Baltic Sea. The principal plateaus are *Langfield*, *Sognefield*, *Dovrefield*, and *Hardangerfield*, all at considerable heights above the sea.

The **rivers**, owing to the formation of the country, are comparatively short, rapid torrents; the principal is the *Glommen*, flowing into the Skager Rack after a course of 340 miles.

The **coast-line** of Norway is remarkable for its deep indentations called fiords, narrow arms of the sea, extending sometimes 50 miles into the land between precipitous mountains, and abounding in picturesque but wild scenery. The

principal **capes** are the *North Cape*, the northern extremity of the country, and the *Naze*, the southern extremity.

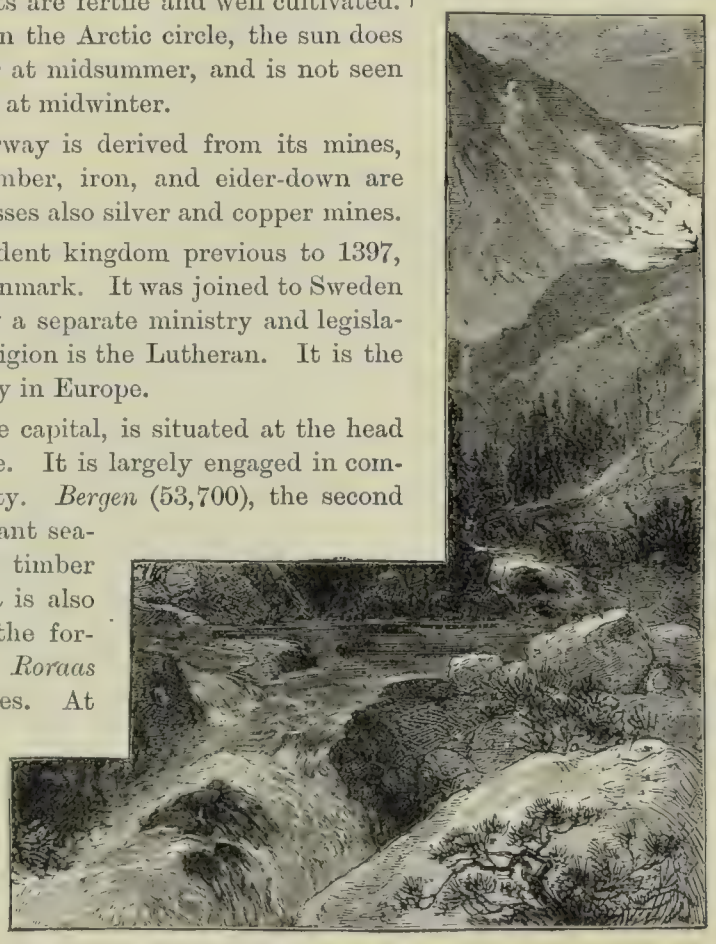
Numerous small **islands** extend along the coast, the principal of which are the *Lofoden Isles*, with important fisheries. Near them is the dangerous whirlpool, the Maelstrom, caused by the meeting of opposing tidal currents.

The **climate** of Norway is very severe but healthy, and owing to the influence of the Atlantic Ocean is much more moist than that of Sweden. The soil is in general rocky and barren, although some tracts are fertile and well cultivated. In the northern part, within the Arctic circle, the sun does not set for weeks together at midsummer, and is not seen for the same length of time at midwinter.

The chief wealth of Norway is derived from its mines, forests, and fisheries. Timber, iron, and eider-down are largely exported. It possesses also silver and copper mines.

Norway was an independent kingdom previous to 1397, when it was united with Denmark. It was joined to Sweden in 1814, but is governed by a separate ministry and legislature or Storthing. The religion is the Lutheran. It is the most thinly peopled country in Europe.

Christiania (150,450), the capital, is situated at the head of a fiord of the same name. It is largely engaged in commerce, and has a university. *Bergen* (53,700), the second city in size, and an important seaport, with large exports of timber and dried fish. *Drontheim* is also an important town, and the former capital of Norway. *Roraas* has extensive copper mines. At *Frederickshald*, Charles XII. of Sweden was killed while besieging it. *Hammerfest* is the most northerly town in Europe. *Stavanger* is an important seaport on the south-west coast.



Norwegian Scenery.

SWEDEN.

Area, 170,980 square miles; population, 4,734,500; persons to square mile, 27.

Sweden occupies the eastern portion of the Scandinavian peninsula, including part of Lapland in the north, and extending along the western shores of the Gulf of Bothnia and the Baltic Sea.

It is divided into three great divisions, *Gothland*, *Svealand*, and *Norland*, and these are subdivided into 24 läns or governments.

Sweden resembles Norway in most of its characteristics, but the slope of the mountains is more gradual towards the sea. It has many rivers, but they are rapid and impetuous, and of little value for commerce. More than one-half of the surface is covered with vast forests.

Numerous **lakes** form the most striking feature of the country. The principal are *Lakes Wener*, *Wetter*, *Mälar*, and *Hielmar*.

The **islands** of *Gothland* and *Oland* in the Baltic belong to Sweden.

The **climate**, like that of Norway, is severe, and agriculture is only carried on in the south.

The **mines** of Sweden are very valuable. They are celebrated for their iron, which is considered the best in the world; the copper mines of Dalecarlia are also famous. The principal mining districts are in the valley of the Dal.

The **form of government** is a limited monarchy, and the religion Lutheran.

Stockholm (246,600), the capital, is situated partly on the mainland and partly on some small islands at the junction of Lake Mälar with the Baltic. It possesses a safe and commodious harbor, and carries on an extensive trade. *Goteburg* (104,700) is the second city, and an important seaport, with large exports of iron and timber. *Upsala* is famous for its university. *Carlscrona*, in the south, situated on five small islands, is the principal station of the navy. *Dannemora* has celebrated iron mines, and *Fahlun*, *Norkœping*, *Malmo*, *Gefle*, *Jonkoping*, *Helsingborg*, and *Calmar* are the only other towns of importance.

LAPLAND.

Lapland lies to the north-east of Sweden, and is the most northerly part of Europe. It belongs nominally to Sweden and Russia, but the country is so poor, and the inhabitants are so wandering, that the latter are practically independent. They are small in stature, and subsist chiefly upon the flesh and milk of the reindeer, their chief domestic animal. They profess Christianity, but mingle with it many Pagan superstitions. The population barely reaches 6,500.

DENMARK.

Area, 15,289 square miles, more than two-thirds the size of Nova Scotia; population, 2,200,000; persons to square mile, 143.

Denmark comprises the peninsula of Jutland and a group of islands lying at the entrance of the Baltic Sea. It is bounded on the north by the Skager Rack; on the west by the North Sea; on the south by Germany; and on the east by the Baltic, the Sound, and the Cattegat.

The principal **islands** are *Zealand*, *Fünen*, and *Laaland;* and besides these are numerous smaller islands, both on the east and west coasts.

The straits between the islands and the mainland are called the *Sound*, the *Great Belt*, and *Little Belt*. The most northerly point of the peninsula is called the *Skaw*.

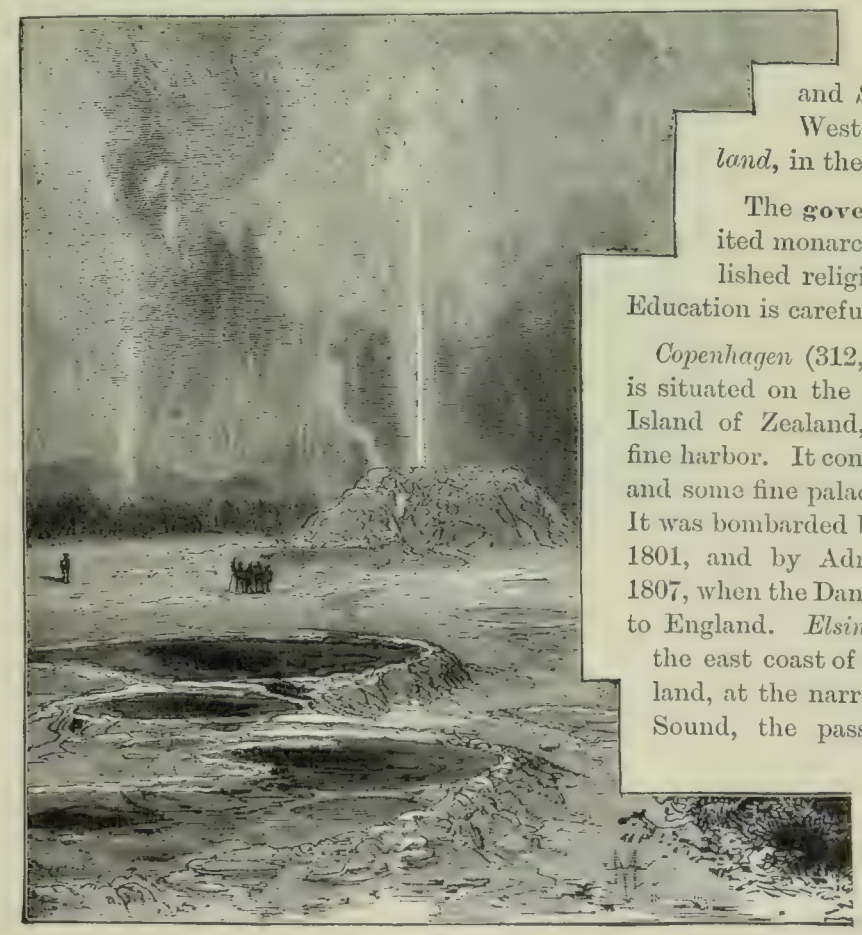
The **surface** of Denmark is flat, scarcely interrupted even by a hill, and the rivers are small. The only navigable river is the *Eider*, flowing into the North Sea; it is connected with the Baltic by the Canal of Kiel.

The **climate** is damp; the soil in the south is fertile and well cultivated, but in the north it consists of barren and dreary wastes. The Danes have always been celebrated for their maritime enterprise. Their manufactures are unimportant, the inhabitants being chiefly engaged in agriculture or the fisheries.

Lapps and Reindeer.

Denmark possesses also the island of *Iceland* and the *Faroe Islands*. Iceland is situated in the Atlantic, about 200 miles east of Greenland. The climate is cold and the country barren. The island is famed for its numerous volcanoes, the largest of which is *Mount Hecla*, and for the geysers, or boiling springs, which throw up columns of boiling water at intervals, sometimes to the height of 80 feet. Iceland was peopled by the Norwegians in 874, and contains about 70,000 inhabitants. The chief town is *Reikiavik*.

The *Faroe Islands* are situated between Iceland and the Shetland Isles, and export large quantities of eider-down.



Iceland Geysers.

The **foreign possessions** of Denmark are the islands of *St. Thomas*, *St. John*, and *Santa Cruz*, in the West Indies, and *Greenland*, in the Arctic Ocean.

The **government** is a limited monarchy, and the established religion the Lutheran. Education is carefully provided for.

Copenhagen (312,400), the capital, is situated on the east coast of the Island of Zealand, and possesses a fine harbor. It contains a university, and some fine palaces and buildings. It was bombarded by Lord Nelson in 1801, and by Admiral Gambier in 1807, when the Danish fleet was taken to England. *Elsinore* is situated on the east coast of the Island of Zealand, at the narrowest part of the Sound, the passage of which is commanded by the Castle of Kronborg. All vessels entering the Baltic formerly had to pay

dues to Denmark at Elsinore. *Odense* (30,000) is an important town. *Aalborg* and *Aarhuus* are seaports.

[NOTE.—Denmark supplies Great Britain with butter to the annual value of fully 22,000,000 dollars.]

RUSSIA IN EUROPE.

Area, 2,095,504 square miles, rather larger than the Canadian North-west Territories and Manitoba; population, 95,900,000; persons to square mile, 45.

Russia in Europe is bounded on the north by the Arctic Ocean; on the west by Sweden, the Gulf of Bothnia, the Baltic Sea, Germany, and Austria; on the south by Roumania, the Black Sea, and Mount Caucasus; and on the east by the Caspian Sea, the Ural River, and the Ural Mountains, which also separate it from Siberia or Asiatic Russia.

The empire of Russia, of which by far the greater portion is in Asia, comprises more than one-half of Europe and more than one-third of Asia; the whole extent being a little less than that of the empire of Great Britain, and about one-sixth of the whole land surface of the globe. In population it is far inferior to the British Empire, containing altogether only about 115,000,000 inhabitants, of which Russia in Europe has the greater part.

WHITE SEA WALRUS AND SEAL.

Russia in Europe is divided into 71 governments. It consists of one vast plain, with few hills, and without a single mountain, except on the boundaries. South and east of St. Petersburg are the *Valdai Hills*, a table-land, in which most of the large rivers of Russia rise. In the south-east are vast *steppes* or desert sandy plains. The *Ural Mountains*, forming the eastern boundary, extend about 1,200 miles from the Arctic Ocean southward nearly to the Caspian Sea, rising in some parts upwards of 5,000 feet. The *Caucasus Mountains* extend from the Sea of Azov along the north-eastern shore of the Black Sea and eastward to the Caspian Sea; *Mount Elburz*, the highest peak, being 18,526 feet high.

The **rivers** of Russia are large but sluggish, owing to the level nature of the country which they traverse. The principal are the *Petchora*, flowing into the Arctic Ocean; the *Dvina*, flowing into the White Sea; the *Neva*, *Duna*, *Niemen*, and *Vistula* (the latter rising in Russian Poland, and flowing through Prussia) into the Baltic; and the *Dnieper*, *Don*, and *Volga*, flowing south into the Black Sea, the Sea of Azov, and the Caspian Sea respectively. The Volga is the largest river in Europe; it is about 2,200 miles long, and is navigable for the greater part of its course.

A number of large **lakes** extend from near St. Petersburg to the White Sea, and by means of these, and a series of canals, the White Sea is connected with the Baltic. St. Petersburg is also connected with the Caspian Sea by the Volga River and canals. The principal lakes are *Ladoga*, *Onega*, *Saima*, *Ilmen*, and *Peipus*.

Russia possesses but little **sea-coast** compared with the extent of its territory; the *White Sea* and *Arctic Ocean* are on the north; the eastern portion of the *Baltic*, with the *Gulfs of Bothnia*, *Finland*, and *Riga*, on the west; the *Black Sea* and *Sea of Azov* on the south; and the *Caspian Sea* on the south-east.

The **islands** belonging to Russia are *Waigatz*, *Nova Zembla*, and *Spitzbergen* in the Arctic Ocean; the *Aland Isles*, and *Dago* and *Oesel* in the Baltic. Between the Black Sea and Sea of Azov is the peninsula of the *Crimea*, joined to the mainland by the *Isthmus of Perekop*.

The **climate** is cold and severe in the north, but not so extreme as in North America in the same latitude. In the south it is warmer. The soil is barren in the north, and in the south-east, where the vast steppes cover the country; but fertile in the south and west, where barley, oats, and

wheat are extensively cultivated and exported. Hemp is grown in the west to a great extent.

The Ural mountains contain valuable mines of gold, silver, copper, and iron. Manufactures are greatly neglected. The chief exports are timber, hemp, grain, flax, tallow, pitch, wool, and furs.

The **government** is an absolute monarchy, and the religion that of the Greek Church. The Czar is the absolute head both of the Church and of the State. Until March, 1861, the peasants were serfs or vassals of the proprietors of the land upon which they were born. They are now free; and education, which was formerly altogether neglected, is now becoming diffused, and the condition of the people improved. The nobles are wealthy, and live in a style of rough magnificence.

St. Petersburg (1,000,000), the capital, is situated on the left bank of the Neva, and on two small islands adjoining. It was founded by Peter the Great, and is one of the most imposing and important capitals of Europe. *Kronstadt* is its port, and the chief station of the Russian navy. It is strongly fortified. *Riga* (196,000), *Revel*, and *Helsingfors*, on the Baltic, are important commercial towns, strongly fortified, and having large exports of flax, hemp, timber, and grain. *Archangel*, on the northern Dvina, near its entrance into the White Sea, is an important commercial town. *Vilna* (103,000), the former capital of Lithuania, has a large trade. The greater part of the inhabitants are Jews. *Moscow* (753,500), the former capital, in the centre of the country, is the great emporium of trade in the interior. It is noted for having been destroyed by its Russian defenders in 1812, causing Napoleon Bonaparte to commence his disastrous retreat. *Odessa* (314,000) is the chief port on the Black Sea. It is strongly fortified, and makes large exports of grain. *Taganrog*, on the Sea of Azov, has a large trade in grain. *Sebastopol*, in the Crimea, is celebrated for its siege by the British and French armies in 1854–55; since the destruction of Sebastopol, *Nikolaiev* is the chief naval station of the Russians on the Black Sea. *Kiev* (183,600), on the right bank of the Dnieper, is one of the oldest cities in the empire. It was here that Christianity was first introduced, and it is regarded as a sacred city. *Tula*, about 100 miles south of Moscow, has large manufactures, chiefly of iron and steel. *Astrakhan*, on an island at the mouth of the Volga, is the emporium of the trade on the Caspian Sea with Persia and other eastern countries. *Nijni Novgorod*, at the junction of the Oka with the Volga, is famed for its annual fairs, lasting from July to September, and attracting upwards of 200,000 persons from all parts of Europe and Asia. *Kasan* (133,000), 430 miles east of Moscow, near the Volga, has a large trade with Siberia and Tartary. Other important towns having populations of 100,000 and upwards are *Lodz*, *Kharkoff*, *Saratoff*, and *Kishineff*.

Caucasia is situated between the Black and Caspian Seas, both north and south of the Caucasian range. The men were celebrated for their bravery, and long defied the power of Russia; the women are remarkable for their beauty. Large numbers emigrated to Turkey, rather than submit to Russian rule.

Finland, in the north-west, between the Gulfs of Finland and Bothnia, formerly belonged to Sweden, but was in 1809 annexed to Russia.

Poland lies to the south-west of Russia, between Prussia and Austria. If was once a powerful independent kingdom, but towards the end of last century was seized and divided among Russia, Prussia, and Austria. It was at one time rather larger than France, and contained 12,000,000 inhabitants; the greater part is now subject to Russia.

Its surface is level, and well adapted for the production of grain, which is largely exported.

The Poles are a brave and patriotic people. In 1830, and again in 1863, they made determined but unsuccessful attempts to throw off the foreign yoke.

Warsaw (465,200), on the Vistula, was the ancient capital. It suffered greatly in the sieges of 1794 and 1831; it is now the principal station for the Russian army in Poland. Its university was suppressed in 1834. A considerable number of the inhabitants are Jews.

HOLLAND, OR THE NETHERLANDS.

Area, 12,648 square miles, nearly two-thirds the size of Nova Scotia; population, 4,565,000; persons to square mile, 360.

Holland is bounded on the north and west by the North Sea, on the south by Belgium, and on the east by Germany.

It is divided into eleven provinces. By the Treaty of London, 1867, Luxemburg, formerly connected with Holland, was declared "neutral territory."

Holland is the lowest and most level country in Europe, a great part of the surface being below the sea-level at high water. It is protected from the encroachment of the sea by enormous dykes, or banks faced with stone and wood. Canals, which are numerous, have long formed the chief highways for traffic, but railways now connect the principal points.

The **coast-line** is much broken by the estuaries of the *Rivers Rhine*, *Maas*, and *Scheldt*, which enter the sea by a number of mouths, and form numerous large islands. The principal additional inlets are the *Zuyder Zee* and the *Dollart*. These were formerly inland lakes, but the sea has broken in

upon them. From the mouth of the Zuyder Zee a chain of islands extends north-east along the coast, the principal of which is *Texel*. There are many lakes near the coast, which are gradually being drained, and thus hundreds of acres are reclaimed from the sea annually. The Salt Lake, near Dort, at the mouth of the Maas, was, in 1440, formed by an inundation of the sea, which destroyed 72 villages, and more than 20,000 persons.

The **climate** is damp and cold, but the soil is rich and productive, and is industriously cultivated. Horticulture has been brought to great perfection; and cattle are reared in large numbers. The manufactures are extensive and valuable, consisting chiefly of linen and earthenware.

Holland, after throwing off the Spanish yoke, was the foremost commercial nation in the world; but successive wars, and the rivalry of Great Britain and other commercial powers, have greatly diminished its trade.

Its foreign possessions now comprise: *Java*, *Celebes*, the *Moluccas*, or *Spice Islands*, and parts of *Sumatra*, *Borneo*, and *New Guinea*, in the East Indies; *Curaçoa* and several other islands in the West Indies; *Surinam*, or *Dutch Guiana*, in South America; and some forts on the coast of Guinea in Africa.

Amsterdam (417,550), the capital, is one of the first commercial cities of Europe. The site of the city is marshy, and the houses are built on piles. It is intersected by canals, crossed by about 300 bridges. *Rotterdam* (209,200) is next in importance and commerce. North of it is "*The Hague*" (160,500), the residence of the Court, and a beautiful city. *Leyden* is celebrated for its university, and for its heroic defence against the Spaniards, in 1573. *Utrecht* is famous for its treaties, and has large woollen manufactures. *Bois le Duc* has linen manufactures. *Haarlem*, *Groningen*, *Arnhem*, *Tilburg*, and *Maastricht* are important towns.

BELGIUM.

Area, 11,373 square miles, three-fifths the size of Nova Scotia; population, 6,147,000; persons to square mile, 540.

Belgium is bounded on the north by Holland, on the west by the North Sea, on the south by France, and on the east by Germany and Luxemburg.

It is divided into nine provinces.

The **surface** is in general level. In the south and east the country presents a pleasing variety of plains and gently undulating eminences.

The principal **rivers** are the *Scheldt*, draining the west, and the *Meuse*, with its tributary, the *Sambre*, draining the east; both flow through Holland into the German Ocean. The coast is low, and the country is protected from the sea by sand-hills or dunes.

The **climate** is mild and pleasant; the soil is productive, and most industriously cultivated. Belgium is the most densely peopled country in the world, and has large and important manufactures, chiefly of lace, cambric, and woollens. It also possesses extensive iron and coal mines.

Belgium was at one time the foremost commercial country of Europe, but gave place to Holland, which in turn yielded its supremacy to Great Britain.

Belgium, formerly called Flanders, belonged successively to Burgundy, Austria, Spain, and France. In 1814 it was joined to Holland, forming the Kingdom of the Netherlands. In the Revolution of 1830 it achieved its independence, and in 1831, Leopold of Saxe-Coburg, uncle of Queen Victoria, was elected king.

Brussels (482,000), the capital, is one of the most beautiful cities of Europe, and has a large trade in the manufacture of lace and carpets. Ten miles to the south is the battle-field of Waterloo, where Napoleon was defeated by the British in 1815. *Antwerp* (227,000) is the most important port, and carries on the largest trade. It was formerly the first city in Europe for commerce, and has a celebrated cathedral. *Ghent* (153,740) and *Bruges* have large cotton manufactures. *Ostend* is an important seaport. *Mons* and *Namur* are important fortified towns; the former has a considerable iron and coal trade; the latter manufactures cutlery and hardware. *Louvain* is the seat of the principal university. *Malines* or *Mechlin* (51,000) is famous for its lace manufactures. *Liege* (150,000) is the most important iron manufacturing town on the continent.

FRANCE.

Area, 204,092 square miles, about the same size as the Province of Quebec; population, 38,350,000; persons to square mile, 187.

France is bounded on the north by Belgium and the English Channel; on the west by the Bay of Biscay; on the south by Spain and the Mediterranean; and on the east by Italy, Switzerland, and Germany.

Previous to the Revolution in 1789, France was divided into 34 provinces; after that event it was divided into 87 departments, named from the rivers or mountains within their boundaries. In 1860, the Duchy of Savoy and County of Nice were ceded to France by the King of Italy. At the close of the war of 1871, Alsace and part of Lorraine were ceded by France to Germany.

The **surface** of France consists chiefly of undulating plains, except in the east, which is mountainous. The

highest mountains in the south are the *Pyrenees*, forming the boundary between France and Spain, the highest summit being Maladetta or Pic de Nethou (11,168 feet). In the east are the *Alps*, forming the boundary between France and Italy, with Mont Blanc 15,781 feet above the sea, the highest mountain in Europe; the *Jura Mountains* between France and Switzerland; and the *Vosges Mountains* between France and the lately ceded province of Alsace. To the west of the Jura Mountains is the plateau of Burgundy, from which the *Cevennes* extend south-west, forming the boundary between the basin of the Rhone and the rivers flowing west into the Bay of Biscay. To the west of the central Cevennes chain are the mountains of *Auvergne* and *Forez*.

France may be divided into four great river basins, all sloping from the mountains in the eastern part of the country to the sea—that of the tributaries of the *Rhine*, the *Moselle*, and the *Meuse*, flowing north; the *Seine*, flowing into the English Channel; the *Loire* and *Garonne*, flowing west from the Cevennes to the Bay of Biscay; and the *Rhone*, flowing south into the Gulf of Lyons. The extent of navigable rivers and canals is upwards of 8,000 miles.

France is very compact in territory, and is washed on three sides by the sea. The principal cape is *Cape de la Hogue*, in the north. The principal bays and gulfs are: *St. Michael's Bay*, on the north-west; the *Bay of Biscay*, on the west; and the *Gulf of Lyons*, on the south. The only island of importance belonging to it is *Corsica*, which is mountainous, and noted as having been the birthplace of Napoleon Bonaparte. The *Hyères Islands*, near Toulon, in the Mediterranean, are celebrated for the salubrity of their climate. On the north-west is *Ushant;* and in the Bay of Biscay, *Belle Isle*, *Ré*, and *Oleron*.

The **climate** of France is one of the finest in Europe, as the country is situated about the middle of the temperate zone. The soil is fertile and favorable for agriculture, which forms the occupation of three-fifths of the population. Its productions are various: in the north, wheat and grain; in the middle and south, the vine; and in the south, olives, figs, oranges, almonds, and other southern fruits. The wines and brandies of France are celebrated, and are considered to be among the best in the world. Beet-root is extensively cultivated for the manufacture of sugar.

In **manufactures and commerce**, France is one of the first countries in the world, but still much inferior to Great Britain. The principal manufactures are silks, woollens, porcelain, jewellery, articles of fashion, laces, gloves, and fancy-wares. Its imports and exports amount to about 1,640,000,000 dollars. France is one of the five great powers of Europe, and maintains a standing army of from 500,000 to 600,000 men, which is kept up by conscription. The annual revenue is greatly in excess of that of Great Britain, and the public debt is one of the largest in the world.

Branch of Mulbery Tree, Silk-worm, Cocoon, and Moths.

France has been the scene of many revolutions and changes, commencing with the memorable Revolution of 1789. The present government is republican.

In literature and science, France has always held a high position in the world; but popular education was much neglected until Louis Philippe ascended the throne, since which time an extensive and well-organized system has been established under the control of Government. The established religion is the Roman Catholic, but all religions are tolerated, and Protestant clergymen are also paid by the State.

The **foreign possessions** of France are the colony of *Algeria* and the protectorate of *Tunis*, in the north of Africa; *Senegal*, and other settlements in the west; portions of the *Sahara* and *Soudan*, amounting to over half a million square miles; *French Congo* and *Gaboon* countries, amounting to 250,000 square miles; and portions of *Madagascar*, the island of *Réunion*, or *Bourbon*, with some smaller islands in the Indian Ocean. In Asia, *Yanaon*, *Chandernagore*, *Karikal* and *Pondicherry*, on the east coast of Hindostan, and *Mahé* on the west; and French *Indo-China*, including *Annam*, *Tonquin*, *Cochin China*, and the protectorate of *Cambodia*. In North America, the islands of *St. Pierre*, *Langley*, and *Miquelon*, off the coast of Newfoundland; *Guadaloupe*, *Martinique*, and other islands, in the West Indies; and *French Guiana*, in South America. In Oceania, *New Caledonia*, the *Society Islands*, the *Marquesas Islands*, and neighboring groups.

Paris (2,500,000), the capital, situated on the Seine, is the second largest city in Europe; in architectural splendor and beauty, it ranks first. It was much improved during the reign of Emperor Napoleon III. It is the great centre for the manufacture of articles of taste and fashion; and is distinguished for the number and high character of its literary, art, and scientific institutions, not less than for its numerous splendid palaces, churches, and places of amusement. Near Paris are *Versailles*, celebrated for its palace

and gardens, and *Sèvres*, for porcelain manufactures. *Lyons* (416,000), on the Rhone, the second city in France, is celebrated for its silk manufactures. *Marseilles* (404,000), on the Mediterranean, is one of the oldest and most important cities in Europe. It is the great link of communication between France and the Levant, and is the largest seaport in France. A little to the east is *Toulon*, an important naval port and arsenal. The other seaports are *Bordeaux* (252,400), with a large wine trade, on the Garonne; *La Rochelle*, near the mouth of the Charente; and *Nantes* (122,000), on the Loire, on the west coast; and *St. Malo*, *Havre* (116,000), at the mouth of the Seine, and *Dieppe*, on the north coast. The fortified naval ports are *Cherbourg*, on the north, and *Brest*, *L'Orient*, and *Rochefort*, on the west.

In the Rhone basin are: *Montpelier*, near the Mediterranean, noted for its salubrious climate; *Nîmes*, noted for its Roman antiquities; *Avignon*, on the Rhone, the ancient residence of some of the Popes; *Dijon*, the centre of the Burgundy wine trade; *Chambery* the chief town of Savoy, and *Nice*, a favorite health resort.

In the north: *Rouen* (112,000), *Amiens*, *Abbeville*, *Lille* (201,200), and *Rheims* (104,000) have large woollen and cotton manufactures. Amiens has a fine cathedral, and is memorable for the treaty made there in 1802 between France and England; in the cathedral of Rheims the French kings were usually crowned; near Abbeville is the ancient battle-field of *Crecy*, and farther north that of *Agincourt*; Lille is strongly fortified. *Valenciennes* is celebrated for its lace. *Roubaix* (115,000) is an active centre of trade.

In the basin of the Loire are: *Tours* and *Orléans*, noted for their manufactures of cloth; Orléans is celebrated as the scene of the exploits of Joan of Arc; *St. Etienne* (133,500) is the chief seat of the iron manufactures of France.

Farther south are: *Limoges*, on the Vienne, and *Angoulême*, on the Charente; the latter has some porcelain manufactures. *Toulouse* (150,000), on the Garonne, is where Wellington defeated Soult in 1814; *Pau*, near the Pyrenees, is a favorite resort for invalids; *Bayonne* is where the bayonet was invented; and *Biarritz* is a fashionable watering place.

SPAIN.

Area, 197,670 square miles, considerably less than Ontario; population, 17,550,000; persons to square mile, 88.

Spain is bounded on the north by France and the Bay of Biscay, on the west by Portugal and the Atlantic Ocean, on the south and east by the Mediterranean.

It was formerly divided into 14 provinces; but since 1833 it has been subdivided into 49 smaller provinces or governments. Spain is the most mountainous country in Europe, with the exception of Switzerland. The central region is a table-land, occupying about one-half of the whole area of the country, and nearly surrounded by mountains. The principal mountains are the *Pyrenees*, forming the boundary between Spain and France, extending westward under the name of the *Cantabrian* chain, or mountains of Asturias, and terminating in Cape Finisterre on the Atlantic. Farther south, and extending from east to west, are the mountains of *Castile*, the *Sierra Toledo* and the *Sierra Morena*; and on the south coast the *Sierra Nevada*, the highest summit of which is *Mulahacem* (11,680 feet), the most elevated point in the peninsula. Between these chains are large and fertile plains, through which the principal rivers flow, the elevated central plateau forming the boundary between those flowing west and those flowing east; the *Minho*, *Douro*, *Tagus*, *Guadiana*, and *Guadalquivir*, flow west into the Atlantic; and the *Ebro*, *Guadalaviar*, *Xucar*, and *Segura* flow east into the Mediterranean.

The **coast** is bold and mountainous; the principal capes are *Ortegal*, *Finisterre*, and *Trafalgar* (where Nelson fell victorious in 1805) on the west coast; *Cape Tarifa* and *Europa Point* on the south; and *Capes Gata*, *Palos*, *Nao*, and *Creux*, on the east. The islands belonging to Spain are the *Balearic Isles* (including *Majorca*, *Minorca*, *Iviça*, and *Formentera*, and two smaller islands), in the Mediterranean.

The **climate** of Spain varies. In the valleys the heat is excessive; and the high table-lands are alternately subject to scorching hot winds and freezing winter blasts, both destructive to vegetation. The soil is in general rich, but it is poorly cultivated. Olives, figs, vines, oranges and lemons grow in great abundance. Vast flocks of merino sheep, the wool of which is particularly valuable, are reared on the high lands; and the horses of Andalusia, in the south, are famous. The mines of Spain are also valuable, especially those of iron, lead, and quicksilver; but they are little wrought. The chief exports are fruit, wool, wine, cork, lead, iron-pyrites, and grain.

Spain was formerly one of the first powers of Europe, and ruled over a large portion of it, besides possessing the greater part of America, from Mexico southwards; but it now ranks as a second-rate power. Of all its vast foreign possessions there now remain only the islands of *Cuba* and *Porto Rico* in the West Indies, the *Philippine*, *Sulu*, *Caroline*, *Palaos*, and *Ladrone* Islands in the Pacific, and the *Canaries* and other small islands off the coast of Africa. It also possesses *Ceuta* and some minor settlements on the north coast of Africa.

The **government**, after the revolution of 1820, was a limited monarchy, but in 1868 Queen Isabella was driven from the throne. After various changes of government, Alfonso, son of the ex-Queen Isabella, became king in 1874,

and the government is now a constitutional monarchy. The established religion is the Roman Catholic.

Spain once possessed many universities, but now they are neither numerous nor well attended. Popular education is in a low state, and the people are very ignorant. Bull-fighting was formerly a favorite amusement, but has now somewhat declined.

Madrid (472,200), the capital, is situated on a plain about 2,000 feet above the sea, near the centre of the country. About 30 miles north-west is the celebrated palace, the Escurial. *Barcelona* (275,000), on the Mediterranean, is the second city in size, but the chief in importance for commerce, wealth, and manufactures. *Seville* (144,000), the former Moorish capital of Spain, on the Guadalquivir, is a large and handsome city. *Cadiz*, on the Island of Leon, is an important naval and commercial port, strongly fortified. *Murcia* (98,000), on the Segura, and *Valencia* (171,000), on the Guadalaviar, near the Mediterranean, have large manufactures of silk. *Malaga* (134,000), *Almeria*, and *Alicante*, on the southern coast, largely export fruit. *Xeres*, near the mouth of the Guadalquiver, is celebrated for its sherry wine. *Ferrol*, on the north-west, and *Cartagena*, on the south-east, possess very fine harbors, and are naval stations. Near Ferrol is *Corunna*, with a fine harbor, where Sir John Moore was killed. In the valley of the Douro are *Valladolid*, in former times the capital of the Spanish monarchy, and *Salamanca*, celebrated for its university. On the Tagus is *Toledo*, an ancient city, celebrated for its sword manufactures. On the Guadalquiver is *Cordova*, famous in ancient and mediæval history, under the Romans and the Moors. *Granada*, in the south-east, a former capital of the Moorish kings, contains the celebrated palace of the Alhambra. *Saragossa*, on the Ebro, is noted for its defence against the French in 1808–9. Many of the cities of Spain are celebrated as the scenes of great battles and sieges during the Peninsular War, between Great Britain and France, at the commencement of this century; as Badajoz, Talavera, Ciudad Rodrigo, Salamanca, Vittoria, and others.

GIBRALTAR.

Gibraltar, at the extreme south of Spain, is the strongest fortress in the world, and has belonged to Britain since 1704. It is built on a precipitous rock, 1,500 feet high, and has stood three sieges, the last and most memorable of which continued for more than three years (1779-83), against the French and Spanish forces.

PORTUGAL.

Area, 34,038 square miles, about the size of Newfoundland; population, 5,000,000; persons to square mile, 147.

Portugal occupies the south-western portion of the Iberian Peninsula, and lies between Spain and the Atlantic Ocean. It is divided into six provinces.

Portugal resembles Spain in most of its physical features and productions.

It is traversed by several of the mountain ranges and rivers of Spain. The *Serra d'Estrella*, a continuation of the mountains of Castile, terminate in *Cape de Roca*, the most westerly point of Europe. The *Serra d'Ossa* and *Serra Monchique*, continuations of the Sierra Nevada, terminate in *Cape St. Vincent*, off which Admiral Jervis defeated the Spanish fleet in 1797. The *Douro* and *Tagus* enter the Atlantic in Portugal, and the *Minho* and *Guadiana* form respectively the northern and south-eastern boundaries between Portugal and Spain. The *Mondego* is the only river of importance wholly Portuguese.

The **climate** is delightful, although excessively warm in the valleys; and the soil, like that of Spain, is rich, though poorly cultivated. Vines, oranges, lemons, olives, and figs grow abundantly. The principal exports are port wine, cork, oil, and fruit.

In the fifteenth and sixteenth centuries Portugal was the most enterprising maritime power in Europe. The Portuguese were the first discoverers of the route to India by the Cape of Good Hope, and the first voyage round the world was made by a fleet under Magellan, a Portuguese navigator;

but they have now greatly declined, and commerce, manufactures, and agriculture are much neglected.

The **foreign possessions** remaining to Portugal are *Madeira*, the *Cape Verde Islands*, part of *Guinea Coast*, *Angola*, *Benguela*, *Mozambique*, or East Africa, and other settlements in Africa; *Goa*, and several other settlements in Hindostan; *Macao* and other settlements in China; and *Solor*, *Flores*, and settlements at *Timor*, in the Indian Archipelago. The *Azores Islands* also belong to Portugal. *Brazil*, in South America, formerly in its possession, became independent in 1822.

The **government** is now a limited monarchy, and the established religion the Roman Catholic.

Lisbon (246,300), the capital, is situated on the Tagus, which here widens, forming a magnificent harbor. It is finely situated, but poorly built. It was nearly destroyed by an earthquake in 1755, when 60,000 persons are said to have perished. *Oporto* (106,000), at the mouth of the Douro, is the second city in size and importance, and exports port wine, principally to Britain. These two cities divide the commerce of the country. *Setubal*, south-east of Lisbon, at the head of the bay of the same name, has large manufactures of salt, and *Coimbra*, on the Mondego, has the only university in the kingdom. Other towns are *Braga*, *Loulè*, and *Evora*.

GERMANY.

Area, 208,738 square miles; population, 49,416,476; persons to square mile, 237.

Germany is bounded on the north by the Baltic Sea, Denmark, and the North Sea; on the west by Holland, Belgium, and France; on the south by Switzerland; on the south and south-east by Austria-Hungary; and on the east by Russia.

The territory of Germany comprises a large part of central Europe, and is composed of a number of formerly independent States, which had their own rulers and separate constitutions.

Before the Prusso-Austrian war of 1866, Austria was included in the German Confederation; but after the war she renounced the Confederation, and it came to an end. After the successful termination of the war with France (1871), the remaining States, which are 26 in number, were united under one general government, with William King of Prussia as the first emperor.

These States are:

In North Germany.

The Kingdoms of Prussia and Saxony.

The Grand Duchies of Oldenburg, Mecklenburg-Schwerin, Mecklenburg-Strelitz, Saxe-Weimar.

The Principalities of Lippe, Schaumburg-Lippe, Schwartzburg-Rudolstadt, Schwartz-Sonderhausen, Reuss-Schleiz, Waldeck.

The Duchies of Brunswick, Saxe-Coburg-Gotha, Saxe-Meiningen, Saxe-Altenburg, Anhalt.

The Free Cities of Hamburg, Lübeck, and Bremen.

In South Germany.

The Kingdoms of Bavaria and Würtemburg.
The Grand Duchies of Baden and Hesse.
The Principality of Reuss-Greiz.
The Empire Province of Alsace-Lorraine.

Saxony and the South German States retain their own sovereigns, have their Representative Assemblies, though with limited powers, and are nominally independent; but Prussia controls the military forces of the Confederation, and virtually rules the whole. The Federal Parliament meets at Berlin. Many of the States are small, and of little importance.

The *Sudetic* chain of mountains, stretching from the borders of Westphalia to the Carpathian Mountains in Austria, separates Germany into two parts—Northern or Lower Germany, forming part of the great plain formerly mentioned, and Southern or Upper Germany, diversified by mountains and plains. This chain is called by various names—as the *Harz Mountains* in Hanover, the *Erz Gebirge* between Saxony and Bohemia, and *Riesen Gebirge* between Prussia and Bohemia. From the junction of the Erz Mountains and the Bohemian Forest the chain extends to the Harz Mountains, and another smaller chain traverses the table-lands of Bavaria, terminating in the *Black Forest* on the east bank of the Rhine. The highest summits are about 5,300 feet above the sea-level.

The principal **rivers** are: the *Danube*, rising in the Black Forest, and flowing east into the Black Sea; the *Rhine*, *Weser*, and *Elbe*, flowing north into the North Sea; and the *Oder* and *Vistula*, flowing into the Baltic Sea.

Germany possesses but few seaports; and it is probably owing to this that, until recently, its commerce has been comparatively little developed.

The **climate** of Germany is temperate; but being chiefly inland, it is more subject to extremes of heat and cold than other countries in the same latitude.

The **soil** in the north and north-east is sandy and marshy, with numerous small lakes; but in the south and west it is very fertile, yielding large quantities of grain for export. The Rhine wines are celebrated; the vineyards on its hilly banks are very picturesque, and the scenery attracts large numbers of tourists. Vast forests still cover large tracts of the country, as the Black Forest, Bohemian Forest, and others.

Germany is rich in minerals. In the Harz and Erz Mountains are found lead, iron, copper, tin, and other

metals. Bavaria is celebrated for its mines of rock-salt, and coal is found in various localities.

The Germans are industrious, and carry on large manufactures; but labor is very poorly paid. Education, especially in Prussia, is carefully provided for, and attendance at school is made compulsory; non-attendance being punished by a fine against the parents. In the north the religion is chiefly Protestant; in the south it is Roman Catholic.

Of late, Germany has given considerable attention to the establishment of Colonies. In Africa she has appropriated Togoland, Cameroons, and what are known at present as German South-West Africa, and German East Africa.

The Federal Government consists of the Emperor, a Federal Council or Bundesrath of 58 members, and an Assembly or Reichstag of 397 members, or about one for each 118,000 inhabitants. All questions of war, peace, diplomacy, and commerce are in the hands of the Emperor, but each State controls its own local affairs.

PRUSSIA.

Area, 134,463 square miles, one-third smaller than the Province of Quebec; population, 29,956,000; persons to square mile, 223.

Prussia is the first country in Germany for size, population, and importance, and is bounded on the north by the Baltic Sea, Mecklenburg, Denmark, and the North Sea; on the west by Holland, Belgium, and France; on the south by some of the smaller German States and Austria; and on the east by Russia.

Its **fourteen provinces** are:

East Prussia.	Saxony.
West Prussia.	Schleswig-Holstein (including Heligoland).
Berlin.	Hanover.
Brandenburg.	Westphalia.
Pomerania.	Hessen Nassau.
Posen.	Rheinland.
Silesia.	

Hohenzollern.

The **surface** is in general flat, sloping towards the north. In the south are the *Harz*, *Riesen Gebirge*, and *Sudetic* chains of mountains; in the north-east it is covered to a great extent with vast sandy and marshy tracts, and numerous small, shallow lakes. The rivers are slow, and favorable for navigation. The principal are: the *Rhine and Elbe*, flowing into the North Sea, and the *Oder*, *Vistula*, and *Niemen*, flowing into the Baltic Sea. None of these rise in Prussia.

The **sea-coast** of Prussia is on the Baltic, with a small portion on the North Sea; opposite the mouths of the rivers long sand-banks or islands nearly enclose the gulfs called the *Stettiner Haff*, *Frische Haff*, and *Curische Haff*.

The **climate** in the east and north is subject to extremes, but in the western provinces it is milder and more favorable to agriculture. The soil in the west and south is fertile, and all the ordinary grains are grown in sufficient quantities for exportation. The vineyards of the Rhine are celebrated, and tobacco is grown in the south.

Prussia is not rich in minerals; but iron, copper, lead, and coal are found in the mountain ranges. Amber is found on the shores of the Baltic.

The **commerce** of Prussia is large. The principal exports are grain, wool, linen, flax, and Rhenish wines. It has also important linen, woollen, cotton, and iron manufactures.

The **form of government** is an hereditary constitutional monarchy, with Upper and Lower Houses of Representatives; but the King, who is also Emperor of Germany, still possesses great power. The constitution was granted by Frederick William IV. in 1850.

The royal family, and the greater part of the inhabitants, are Protestants, but all religions are equally tolerated. The system of education is very complete, and every child is required by law to attend school.

Berlin (1,579,000), on the Spree, a tributary of the Elbe, is the capital; it is the largest city in Germany, and one of the first in Europe; it is noted for its university. *Potsdam* near Berlin, is celebrated for its royal palace of Sans Souci, and is the headquarters of the Prussian army. *Wiesbaden*, in the former Duchy of Nassau, is famous for its hot springs. On the Oder are: *Breslau* (335,000), the second city in size and importance, with large woollen and linen manufactures; and *Frankfort*, with large manufactures of cloth and an extensive trade.

On the Elbe are: *Magdeburg* (202,000), one of the strongest fortresses in Europe, sacked by Tilly in 1631; *Wittenberg*, where the Reformation began; and *Altona*, the capital of Holstein. *Halle*, on the Saale, a tributary of the Elbe, has a notable university.

On the Rhine are: *Cologne* (282,000), celebrated for its magnificent cathedral, and the principal seat of commerce on the Rhine; *Bonn*, with a university; *Düsseldorf*, an important town and river-port for the cotton and silk manufactures of *Elberfield* (126,000), *Barmen* (116,000), etc. *Coblentz*, at the junction of the Moselle with the Rhine, with *Ehrenbreitstein*, on the opposite side of the river, one of the strongest fortresses in Europe; *Bingen*, with a large wine trade; and *Mayence*, a strongly fortified town.

Aix-la-Chapelle, or Aachen, 30 miles west of Cologne, has famous baths, and is noted for the treaties which have been negotiated there. *Treves*, on the Moselle, is the most ancient town of Germany, with many old Roman remains. *Frankfort-on-the-Main* (180,000) does a large banking business.

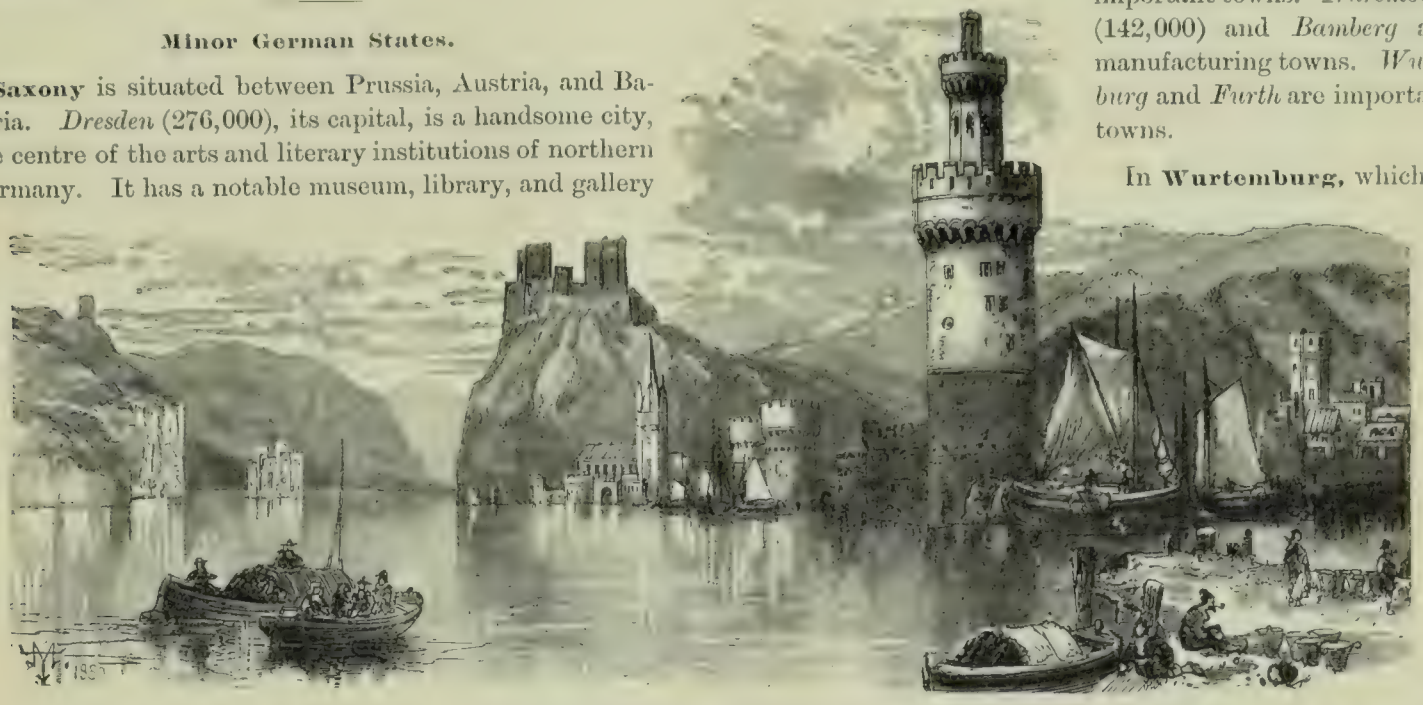
SOUTHERN AND CENTRAL
EUROPE
SCALE OF ENGLISH MILES
0 50 100 150 200 250
Railways
Longitude East from Greenwich
AUSTRIA-HUNGARY
GERMANY
SWITZERLAND
ITALY
RUSSIA
TURKEY
BULGARIA
SERVIA
RUMANIA
GREECE
MONTE-NEGRO
BOSNA HERZEGOVINA
CROATIA
TURKISH CROATIA
TRANSYLVANIA
SOUTHERN CARPATHIANS
E. ROUMELI
BOHEMIA
MORAVIA
GALICIA
BUCOVINA
CRIMEA
Gulf of Perekop
BLACK SEA
AEGEAN SEA
TYRRHENIAN SEA
ADRIATIC SEA
IONIAN SEA
MEDITERRANEAN SEA
SEA OF MARMORA
CORSICA
SARDINIA
CANDIA OR CRETE
Vienna
Budapest
Prague
Berlin
Constantinople
Bucharest
Belgrade
Athens
Venice
Trieste
Naples
Palermo
Rome
Mt. Etna
Mt. Vesuvius
Mt. Olympus
Mt. Athos
Mt. Tatra
Mt. Rotondo
Mt. Corno
Mt. Sibilla
Mt. Khimera
Mt. Ossa
Mt. Ida
Danube R.
Dniester R.
Dnieper R.
Vistula R.
Elbe R.
Rhine R.
Po R.
Tiber R.
Arno R.
Volga R.
Don R.
Kuban R.
Sea of Azof
Gulf of Taranto
Gulf of Venice
Gulf of Lyons
Gulf of Genoa
Gulf of Salonika
Gulf of Lepanto
Gulf of Corinth
Gulf of Nauplia
Gulf of Kalamata
Gulf of Messina
Gulf of Policastro
Gulf of Squillace
Gulf of Manfredonia
Gulf of Contessa
Gulf of Xerxes
Gulf of Egina
Gulf of Arta
Strait of Otranto
Strait of Messina
Strait of Bonifacio
Sea of Azof
Mouths of the Danube
Mouths of the Po
Mouths of the Volga
Mouths of the Dniester
Mouths of the Dnieper
Mouths of the Don
Mouths of the Kuban
Mouths of the Vistula
Mouths of the Elbe
Mouths of the Rhine
Mouths of the Arno
Mouths of the Tiber
Mouths of the Volga

The principal seaports are: *Stettin* (116,000), at the mouth of the Oder, noted for its grain trade; *Dantzic* (120,000), at the mouth of the Vistula, noted for its foreign commerce; *Königsberg* (162,000), on the Pregel; *Memel*, at the entrance of the Curische Haff, with exports of grain and timber; *Kiel*, on the Baltic, and *Flensborg*, in Schleswig.

In the former kingdom of Hanover are: *Hanover* (164,000), the capital; *Gottingen*, with a university; and *Emden*, the chief seaport.

Minor German States.

Saxony is situated between Prussia, Austria, and Bavaria. *Dresden* (276,000), its capital, is a handsome city, the centre of the arts and literary institutions of northern Germany. It has a notable museum, library, and gallery of pictures. At *Meissen*, 15 miles from Dresden, the celebrated Dresden china is manufactured. *Leipsic* (353,000) is distinguished for its book-fairs, its university, and for the defeat of Napoleon in 1813.



View on the Rhine—Tower and Ruined Castles.

In **Brunswick** and **Saxe-Coburg-Gotha,** between Saxony and the former kingdom of Hanover, are situated respectively the cities of *Brunswick* and *Coburg*.

In **Mecklenburg-Schwerin,** between Holstein and Pomerania, is *Rostock*. It has a large library and university, once belonged to the Hanseatic League, and is still an important seaport.

Oldenburg, with its capital Oldenburg, is in the west of Hanover.

In **Saxe-Weimar,** west of Saxony, is *Weimar*, celebrated as having once been the residence of Goethe, Schiller, and other eminent literary men at the court of the Grand Duke.

Hamburg (324,000), on the Elbe, is the principal seaport and most important commercial city of Germany. *Bremen* (180,000), on the Weser, is the principal port for foreign commerce. *Lübeck* (77,000) is an important seaport on the Trave, near the Baltic. These free cities belonged to the old Hanseatic League.

In **Bavaria,** which lies west of Austria-Hungary, is *Munich* (348,000), the capital, on the Isar, a tributary of the Danube. It is a large and beautiful city, with attractive galleries of painting and sculpture, besides literary institutions of note. *Augsburg*, where the Protestant Confession of Faith was presented to Charles V., and *Ratisbon* are important towns. *Nuremberg* (142,000) and *Bamberg* are manufacturing towns. *Wurzburg* and *Furth* are important towns.

In **Wurtemburg,** which is west of Bavaria, *Stuttgart* (140,000), the capital, is near the Neckar.

In **Baden,** west of Würtemburg to the Rhine, is *Karlsruhe*, the capital, a beautiful city. *Heidelberg* is renowned for its university. *Baden* is a fashionable watering-place. *Mannheim*, at the confluence of the Neckar and Rhine, has a large trade.

Hesse lies north of Baden. *Darmstadt* is the capital. At *Worms*, Luther appeared before the Diet.

Alsace, chief city *Strasburg* (124,000), and **Lorraine,** chief city *Metz*, were wrested from France in the war of 1871.

AUSTRIA-HUNGARY.

Area, 240,942 square miles, larger than Quebec; population, 41,232,000; persons to square mile, 171. The population of Hungary alone is 24,000,000.

The **Austro-Hungarian Monarchy** is bounded on the north by Russia, Prussia, and Saxony; on the west by

Bavaria, Switzerland, and Italy; on the south by Italy, the Adriatic Sea, Turkey, Servia, and Roumania; and on the east by Roumania and Russia.

It is one of the five great powers, but has, during the last few years, lost considerable territory and much of its former prestige, in contests with France, Italy, and Prussia. Although it has, through the influence of its ascendant rival, Prussia, been excluded from all connection with the political division of Europe called Germany, still, as most of the inhabitants of the western portion of the empire speak German and are of German descent, it is divided into German, or Cisleithan Austria, or Austria Proper, and Transleithan, or Hungarian Austria.

The German part is mountainous. The Sudetic chain extends along the northern frontier, and Bohemia and Moravia are almost enclosed by mountains. The Alps, in the south, extend from the Tyrol in two chains, in a north-easterly and south-easterly direction; the *Noric Alps*, towards Vienna; and, farther south, the *Carnic* and *Julian Alps* extend into Turkey. The *Carpathian Mountains* extend from near Vienna, in a circular direction, enclosing Hungary and Transylvania, and separating them from the province of Galicia, and from the kingdom of Roumania on the east and south. A few of the summits rise to the height of 9,500 feet. On the north they are abrupt and precipitous, but on the south they slope more gradually into Hungary, which forms a vast plain, almost surrounded by mountains.

The principal **river** of Austria is the *Danube*, which flows in an easterly and south-easterly direction through the country, receiving the *Inn*, *Drave*, and *Save* from the Alps, and the *March*, *Waag*, and *Theiss* from the northern mountains. The *Elbe*, *Oder*, and *Vistula* rise in Austria and flow through Prussia into the Baltic Sea.

Austria possesses no **coast-line** except on the Adriatic Sea, and has fewer ports than any of the other great countries of Europe.

The **climate**, owing to the inland position of the country, is more subject to extremes than other countries of Europe in the same latitude. North of the Carpathians it is subject to the greatest extremes, and in Hungary it is warmest; while in the mountain regions it varies according to the elevation.

The **soil**, especially in the south and east, is fertile, producing grain and fruit abundantly. Wheat is largely exported, and Hungary produces the celebrated wine, Tokay. Agriculture forms the chief occupation of the inhabitants, but is not in such an advanced state as in the west of Europe.

The **mines** of Austria are very valuable, producing almost every metal; iron, copper, and lead are found in great quantities, as well as gold, silver, and quicksilver; also coal. The salt mines near Cracow are of some note, and are probably the largest in the world.

Commerce, owing to the small extent of the sea-coast, is limited; and **manufactures**, considering the vast resources of the country, are small. Glass, woollens, and linens in Bohemia are the chief manufactures.

Austria comprises under its Government nations speaking various languages, and differing in laws, manners, and customs. They are generally Germans in the west, Hungarians in the east, and Sclavonians in the north and south. Jews are numerous. The Zingari, or Gipsies, are a wandering race, existing chiefly in the Hungarian and Polish provinces.

The **military force** of Austria is large, being computed, when on the peace footing, at 337,000 men. The revenue of the country is about four-fifths of that of Great Britain.

The **form of government** is an hereditary monarchy, with the Emperor as head. The monarchy is divided into the Austrian State and Hungarian State, each having its own legislature and ministry. The Roman Catholic is the prevailing religion, but all forms of religion are tolerated. Education is carefully provided for by Government.

Vienna (1,365,000), the capital of the Empire, is situated on the Danube, and is one of the first cities in Europe for science, literature, and refinement. It is an elegant city, possesses a famous university, and carries on the chief trade of the country. *Prague* (184,000), the capital of Bohemia, is the second city of Austria. It has a university, and is celebrated in European history.

In **Moravia** are the important fortresses *Olmütz* and *Troppau*; *Brünn*, with large woollen manufactures; and *Austerlitz*, famous as the scene of Napoleon's victory in 1805.

In **Styria**, *Grätz* (114,000) has a large iron trade. *Salzburg* is celebrated for its salt manufacture.

In the **Tyrol** are *Trent*, where the famous Catholic Council was held in 1545; *Innsbruck*, an important town with a university; *Klagenfurt* and *Laybach* are important manufacturing towns.

In **Hungary** are *Pesth* and *Buda*, on opposite sides of the Danube, forming one city, *Budapest*, with a population of 506,000. It is now the capital of Hungary. *Presburg*, also on the Danube, was once the capital.

Lemburg (129,000) is the capital of **Gallicia**. *Cracow* (76,000) was the former capital of Poland, and has a university and a splendid cathedral, where the Polish kings were crowned, and many of them buried. *Klausenburg*, *Hermannstadt*, and *Kronstadt* are large and important towns in Transylvania. *Trieste* (158,000), the chief Austrian seaport,

and *Fiume*, the seaport for the Hungarian provinces, are both on the Adriatic Sea.

Under the Treaty of Berlin (1878), the Turkish provinces of **Bosnia** and **Herzegovina** are occupied and administered by Austria-Hungary. Area, 24,000 square miles; population, 1,400,000. The capital is *Serajevo*, or Bosna Serai (26,000).

SWITZERLAND.

Area, 15,990 square miles, about four-fifths the size of Nova Scotia; population, 2,917,000; persons to square mile, 182.6.

Switzerland is bounded on the north by Germany, on the west by France, on the south by Italy, and on the east by Austria.

It is a Republic, consisting of twenty-two cantons united under one federal government.

It is the most mountainous country in Europe, two-thirds of the surface being covered with mountains, and the remainder consisting of an elevated plain. The Jura Mountains, on the west, separate it from France, and in the south and east are the celebrated Alps. These form several distinct chains, the most southerly being the *Pennine Alps*, extending south-west, and the *Rhœtian* or *Tyrolese Alps*, east; a little farther north are the *Bernese Alps*, on the west, and the *Helvetian Alps*, extending north. In the Pennine Alps are the highest summits—Mont Blanc, 15,781 feet; Monte Rosa, 15,217 feet; and the Matterhorn or Mont Cervin, 14,630 feet. In the Bernese Alps the Jungfrau rises 13,720 feet, and Finsteraarhorn, 14,130 feet. Mont St. Bernard is celebrated for its convent, and its breed of sagacious dogs. The Alps are remarkable for their numerous glaciers, or vast fields of ice, filling the higher valleys between the mountains; they are estimated at more than 400 in number. These form the sources of many of the large rivers of Europe; as the *Rhone* and *Ticino*, flowing south; the *Aar*, *Rhine*, and *Inn*, flowing north.

Switzerland is also famed for its numerous and beautiful lakes, *Geneva*, *Neuchatel*, *Constance*, *Lucerne*, *Zurich*, etc.

The **scenery** of Switzerland is most varied and beautiful, rendering it the favorite resort of tourists. Enormous rugged snow-capped mountains, with huge precipices, glaciers, dashing waterfalls, and frequent avalanches, form a striking contrast to the peaceful scenes in the valleys, with their picturesque chalets, waving fields of grain, orchards ripening under a southern sun, and the deep clear lakes almost hidden by the mountains.

The Alps.

The **soil** of Switzerland varies greatly with the locality, and wherever it is possible, it is industriously cultivated. The valleys yield grain, grapes, and various fruits, and the mountains give pasturage to herds of cattle and goats. The manufactures are chiefly cottons and woollens, with a large trade in watches.

The Swiss are a brave, industrious, and frugal people, and are famed for their love of liberty. They speak the French, Italian, or German language, according to the country they border upon. Three-fifths of the population are Protestants and the remainder Roman Catholics.

Berne (46,000), on the Aar, the chief town of the largest

canton, is also the seat of the Federal Diet. *Geneva* (72,000) is beautifully situated on the lake of the same name, and has important manufactures of watches and jewelry. *Basle* (70,000) and *Schaffhausen* on the Rhine, and *Zurich* (90,000) on the lake of the same name, carry on the principal commerce. *St. Gall* is a manufacturing town. *Neuchatel* has clock and watch manufactures. *Lucerne* is charmingly situated on the lake of that name. Other towns are *Lausanne* and *Chaux-de-Fonds*.

ITALY.

Area, 114,410 square miles, more than half the size of the Province of Quebec; population, 30,158,500; persons to square mile, 263.

Italy is bounded on the north by Austria and Switzerland, on the west by France and the Mediterranean, on the south by the Mediterranean, and on the east by the Adriatic Sea and Austria.

Prior to the year 1859, it comprised eight separate States, some independent, and others under the power of Austria, but is now united into a single independent State, the Kingdom of Italy.

The **Kingdom of Italy** comprises Piedmont and Lombardo-Venetia, the former Duchies of Tuscany, Lucca, Parma, and Modena, the Island of Sardinia, the Papal States, and the Kingdom of Naples, including the Island of Sicily. It is now divided into 69 provinces, the old names having ceased to possess any legal value. The kingdom has only been formed since the war and revolutions of 1859-61, when France and Sardinia defeated the Austrians and gained Lombardy; Garibaldi gained Naples and Sicily, and the other States voluntarily annexed themselves to Sardinia, Victor Emmanuel, King of Sardinia, becoming the first King of Italy. Savoy and Nice, formerly belonging to Sardinia, were at the same time ceded to France. In 1866, Austria was compelled, after a short war, to cede Venetia to the new kingdom.

Swiss Glacier.

Italy is a long, narrow peninsula, resembling a boot in shape. Its **surface** is much diversified, presenting every variety of rich and varied landscape. The Alps curve round it on the north and north-west, and the Apennines extend from the Maritime Alps, the southern extremity of the Pennine Alps, through the entire length of the peninsula, rising in the south to the height of about 9,500 feet. These mountain chains divide the country into three parts: the large fertile plains of Piedmont and Lombardy in the north, between the Alps and Apennines; and the eastern and western slopes from the Apennines to the sea.

Italy is well watered by **rivers**, and their basins are remarkably fertile. The principal are the *Po*, with its tributary the *Ticino*, and the *Adige*, flowing into the Adriatic through the northern plains; the *Arno* and *Tiber*, flowing west into the Mediterranean. North of the Po, at the foot of the Alps, are the beautiful *Lakes Como, Lugano, Maggiore*, and *Garda*.

The **coast** is irregular, and indented with many fine gulfs and bays, of which the principal are the *Gulfs of Genoa* and *Gaeta*, *Bay of Naples*, and *Gulf of Salerno*, on the west coast; the *Gulf of Taranto* on the south; and the *Gulf of Venice* on the east, at the head of the Adriatic Sea. The principal capes are *Passaro*, on the south of Sicily, and *Spartivento* and *Leuca*, the southern points of the mainland. The *Strait of Messina* separates Sicily from Calabria, the *Strait of Bonifacio* is between the islands of Sardinia and Corsica, and the *Strait of Otranto* is between the south-eastern extremity of Italy and Turkey.

The **islands** belonging to Italy are: *Sardinia*, the inhabitants of which are chiefly agriculturalists, and have also

important fisheries of anchovy and sardines. *Sicily*, the largest and most fertile island in the Mediterranean, separated from the mainland by the Strait of Messina. In the east is *Mount Etna*, the largest European volcano, nearly 11,000 feet high. *Elba*, on the west coast of Italy, between Corsica and the mainland, was the first place of banishment of Napoleon. The *Lipari Islands*, north of Sicily, with *Stromboli*, called the Lighthouse of the Mediterranean, from its volcano, which is always burning.

The **climate** of Italy is delightful, but on the west coast, between the Island of Elba and the Gulf of Gaeta, the heat of summer causes malaria from the marshes, rendering large tracts of the country uninhabitable. These tracts are called the *Maremma*, *Pontine Marshes*, and the *Campagna*. The soil is very fertile. Rice, wheat, and maize are extensively cultivated, and vines, olives, oranges, and lemons are abundant. Italy possesses few minerals, but is celebrated for its fine marbles and alabaster. Silks are manufactured in the north, and are almost the only manufacture of consequence.

Although till 1859 disunited and unsettled, Italy is famous as having been the seat of the old Roman Empire, the mistress of the world in former ages, and it possesses many interesting classic remains of its former grandeur, forming an ample and interesting study to the traveller and scholar. It was also the seat of several of the most powerful commercial republics of the Middle Ages, such as Venice and Genoa, and is still celebrated as being the great centre of fine arts, painting, sculpture, music, and architecture.

Cathedral at Milan.

Italy, since 1889, has gained a foothold in Africa. Abyssinia and some adjoining territory are now under its protectorate.

The **government** is a limited monarchy, and is formed upon the model of that of Britain. The Roman Catholic is the established religion, but all others are tolerated. There are many large cities in various parts of the kingdom, most of them celebrated in history.

In the former **Papal States:** *Rome* (273,000), the capital, on the Tiber, formerly the mistress of the world, although now sadly decayed, possesses magnificent remains of its former grandeur, and is still celebrated for its splendid buildings, and for the architectural beauty of its old ruins. The Pope, although no longer a temporal sovereign, still holds his court in Rome. *Civita Vecchia* is its seaport.

In **Piedmont:** *Turin* (230,000), formerly the capital of the kingdom of Sardinia, a fine city, with extensive trade, noted for its silk manufactures; *Genoa*, (138,000), the chief seaport of Italy, with important manufactures of silks and velvets, formerly the capital of a powerful republic of the same name; *Spezia*, the chief naval station, with an excellent harbor.

In **Lombardy:** *Milan* (296,000), which does a large trade, is a beautiful city, with a magnificent cathedral of white marble; *Bergamo*, *Brescia*, and *Piacenza* are important towns; *Parma* and *Modena*, the former capital of duchies, and *Bologna* (104,000), with the oldest university in Italy, are important inland towns.

In **Venetia:** *Venice* (130,000) was long the head of a powerful commercial republic. It is built on a number of islands, canals forming the streets, and gondolas the carriages, and it contains many fine buildings. *Padua*, with a celebrated university, and *Vicenza* are large and important towns. *Verona*, *Peschiera*, *Mantua*, and *Legnago* form the famous "quadrilateral," or chain of fortresses to repel foreign invasion.

In **Tuscany:** *Florence* (135,000), surnamed "the beautiful," is a magnificent city, and has long been celebrated as a seat of science and art, and for its splendid galleries of painting and sculpture; it was formerly the head of a republic of the same name; *Pisa*, with its famous leaning tower; and *Leghorn* (79,000), an important seaport. *Ancona* is a fortified seaport on the Adriatic, and near it is *Loretto*, with its famous shrine.

In **Naples,** is *Naples* (463,000), the largest city in Italy, surpassing every city in Europe for the beauty of its situation and appearance. About ten miles from the city is the volcano of Vesuvius, 4,000 feet high, near which are the remains of the ancient cities of Herculaneum and Pompeii, which remained buried in lava and ashes from A.D. 79, until recent excavations brought the ancient sites to light.

In the **Island of Sicily** are *Palermo* (206,000), a fine city, with great commerce; *Messina* (178,000), the principal commercial city; *Catania* (96,000), with manufactures of silk; *Syracuse*, famous for its ancient greatness, and memor-

able in history; and *Marsala*, noted for its wines. *Cagliari* is the chief port of the Island of Sardinia.

The **Island of Malta**, to the south of Sicily, belongs to Great Britain. *Valetta* is the capital, and the chief station for the British fleet in the Mediterranean.

GREECE.

Area, 25,041 square miles, one-fifth larger than Nova Scotia; population, 2,200,000; persons to square mile, 87.

Greece, anciently termed Hellas, is bounded on the north by Turkey, on the west and south by the Mediterranean, and on the east by the Grecian Archipelago.

The **surface** consists of a succession of gentle hills and valleys, well adapted for cultivation. In the northern part are the celebrated mountains *Parnassus* and *Helicon*.

There are no rivers of importance in Greece. The country is almost intersected by the *Gulf of Lepanto* on the west and the *Gulf of Ægina* on the east. The southern part is called the *Morea*, or ancient Peloponnesus, and is joined to the mainland by the *Isthmus of Corinth*. Greece possesses numerous bays and islands. Of the latter, the principal are the *Ionian Islands* on the west coast, including *Corfu*, *Santa Maura*, *Ithaca*, *Cephalonia*, *Zante*, and *Cerigo*. They were formerly under the protection of Britain, but were given up to Greece in 1864. On the east coast are *Negropont* or *Eubœa*, and the *Cyclades*.

A Mohammedan Mosque (Turkey).

The principal gulfs are: *Lepanto*, *Nauplia*, and *Ægina*. The most southerly points of Greece are *Capes Matapan*, *Malio* (or *Malea*), and *Colonna*.

The **climate** is delightful, and the soil fertile, producing in abundance grapes, oranges, lemons, and all southern fruits. The Ionian Isles export large quantities of currants. Owing to the long unsettled state of the country, agriculture has made little progress. Manufactures are few, and the means of internal communication are indifferent, but considerable improvements are being made.

Previous to 1829, Greece was subject to Turkey. It then achieved its independence, and in 1832 elected Otho of Bavaria to be king. He was deposed in 1862; and in 1863, William, the son of the present King of Denmark, was elected in his stead, under the title of George I.

At the Berlin Conference (1880) a strip of territory belonging to Turkey, lying along the then northern boundary of Greece, and containing an area of about 5,162 square miles, with a population of nearly 300,000, was awarded to Greece. After some resistance and delay on the part of Turkey, it was finally handed over to Greece in 1882.

Although small in territory, and now of little political importance, Greece possesses much interest on account of the magnificent remains of its ancient monuments, and the remembrance of its former greatness. Almost every spot is classic ground, as the scene of some remarkable event in its ancient history, when it held the first rank among the nations of the world.

Athens (107,000), the capital, owes its chief interest to its past greatness. It has only now the remains of its ancient magnificence. *Nauplia*, at the head of the gulf of the same name, possesses a fine harbor and fortress, and is a considerable seaport. *Navarino*, in the south-west, is memorable for the destruction of the Turkish navy in 1827 by the combined fleets of Britain, France, and Russia. *Corinth* and *Sparta*, both in the *Morea*, were once renowned cities. *Patras* (33,500), also in the Morea, is an important seaport near the entrance to the Gulf of Lepanto. *Corfu* (19,000), on an island of the same name, is the capital of the Ionian Islands. *Hermoupolis* and *Piræus* are growing centres of population, the former having upwards of 20,000, and the latter 34,000.

TURKEY IN EUROPE.

Area, 66,000 square miles (exclusive of Bosnia, Herzegovina and Novibazar, and Bulgaria), more than twice the size of New Brunswick; population, 4,787,000; persons to square mile, 73.

Turkey, or the Ottoman Empire, comprises possessions in Europe, Asia, and Africa. European Turkey is bounded on the north by Austria, Servia, and Roumania; on the west by Austria, Montenegro, and the Adriatic Sea; on the south by Greece, the Archipelago, and the Sea of Marmora; and on the east by the Black Sea. By the Treaty of Berlin (1878), considerable changes were made in European Turkey. Servia, Roumania, and Montenegro, which had been tributary provinces, were made independent. Bulgaria was erected into a tributory self-governing principality, East Roumelia into a tributary self-governing province; and Bosnia and Herzegovina were put in the occupation and under the administration of Austria-Hungary.

Turkey is a mountainous country, although diversified with rich and fertile valleys and extensive plains. The principal mountains are the *Balkan*, extending from east to west through the centre of the country. From the west end of that range the *Dinaric Alps* extend north-west, and the *Pindus Mountains* south; and from about the middle of the same range, the *Despoto* or *Rhodope Mountains* stretch south-east, and another chain north-west, to the Carpathians, meeting them at the Iron Gate on the Danube.

The principal lakes are *Scutari* and *Ochrida*.

CONSTANTINOPLE.

The chief features of the coast are the *Gulfs of Salonika*, *Contessa*, and *Saros*, in the south; and the *Sea of Marmora*, connected with the Archipelago by the *Dardanelles*, and with the Black Sea by the *Bosphorus*.

Most of the European islands in the Archipelago belong to Greece, but Turkey possesses *Crete* or *Candia* (the ancient Creta), *Lemnos*, and a number of others more generally considered as being connected with Asia.

The **government** is a despotism, the Sultan being the head of the State, with the Grand Vizier as prime minister, and Pachas as governors of the provinces. There is no aristocracy, all preferment depending on the will of the Sultan. Only about 1,000,000 of the whole population are pure Turks, though about 4,000,000 are Mohammedans; the remainder consists of a mixture of the Greek, Bulgarian, and Sclavonic races, belonging mostly to the Greek Church. The Turks are very ignorant, education with them consisting in little more than the reading of the Koran, which may be said to constitute their religion, laws, and literature. Reforms have, however, been introduced, and some progress is being made in educating the people.

Constantinople (874,000), the capital, one of the largest cities in Europe, is beautifully situated on the Bosphorus, or Strait of Constantinople, and possesses a magnificent harbor, called the "Golden Horn." The city presents a splendid appearance from the water, owing to its numerous mosques, glittering domes, and graceful minarets; but the interior is poorly built, and dirty. The houses are in general built of wood, and the streets are narrow. Constantinople was formerly the capital of the eastern division of the Roman Empire, but was taken by the Turks in 1453. *Adrianople* (100,000), on the Maritza, is the second city in importance, and was formerly the capital of the Ottoman Empire. *Gallipoli*, on the Dardanelles, and *Salonika* (60,000) (the ancient Thessalonica) are important seaports.

Bulgaria, now including East Roumelia, is a tributary state of Turkey. It is bounded on the north by Roumania, on the south by Turkey proper, on the east by the Black Sea, and on the west by Servia. Area, 37,860 square miles; population, 3,155,000. The capital is *Sophia* (30,500). Bulgaria contains the famous fortresses of *Widdin*, *Rustchuk*, *Silistria*, *Schumla*, and *Varna*.

Philippopolis (33,400) was the former capital of East Roumelia. The country along the south of the Balkans and the valley of the Maritza is famous for its rose gardens, and exports large quantities of the attar or oil of roses.

Bosnia and Herzegovina, now under the administration and military occupation of Austria-Hungary, lie between that country on the north, Montenegro on the south, Servia on the east, and Dalmatia on the west.

Area, 24,000 square miles; population, 1,400,000. The capital is *Serajevo* or *Bosna-Serai*.

ROUMANIA.

Area, 48,307 square miles; population, 5,500,000; persons to square mile, 115.

Roumania is bounded on the north and west by Austria-Hungary and Servia, on the south by Bulgaria, and on the east by Russia and the Black Sea. It consists of Wallachia and Moldavia, formerly tributary provinces of Turkey, but by the Treaty of Berlin (1878) it was declared independent, and that portion of Bulgaria lying between the Danube and the Black Sea, called the Dobrudscha, was added to it. In 1881 it was erected into a kingdom.

The country consists of fertile plains, sloping from the Carpathian Mountains to the valley of the Danube. The **climate**, however, is subject to extremes, being intensely hot in summer and cold in winter. The principal wealth of the country consists in its cattle, sheep, and horses, of which immense numbers are reared on its extensive pasture lands.

The **rivers** are numerous, being all tributary to the *Danube*, which flows along the southern boundary, and empties itself into the Black Sea by several mouths. The other principal rivers are the *Pruth*, forming in part of its course the boundary between Moldavia and Russia; the *Sereth*, running through Moldavia, and the *Aluta* through Wallachia.

The people are a mixed race, formed by the amalgamation of Trajan's Roman colony with the original Dacian population. The language, known as Wallachian, is mainly derived from the Latin. The Greek Church is the dominant religion, but Jews are very numerous, amounting to about 400,000.

The chief cities are *Bucharest* (221,800), the capital; *Jassy* (90,100), the chief city of Moldavia; and *Galatz* (80,700), at the confluence of the Danube, Sereth, and Pruth, the great centre of commerce and emporium of trade for the whole kingdom.

SERVIA.

Area, 19,050 square miles; population, 2,163,000; persons to square mile, 114.

Servia is bounded on the north by Austria-Hungary, on the west by Bosnia, on the south by Turkey, and on the east by Roumania and Bulgaria. It is a principality governed by an hereditary prince. It was formerly tributary to Turkey, but was made independent, with added territory, in 1878, by the Treaty of Berlin.

The country is mountainous, with extensive heath and forest lands. The soil is fertile, but agriculture and commerce are backward. The principal exports are pigs, cattle, grain, and oak and other woods. The people are Sclavonians, and the dominant religion is the Greek Church. *Belgrade* (55,000) is the capital.

MONTENEGRO.

Area, 3,630 square miles; population, 236,000; persons to square mile, 68.

Montenegro is a small mountainous country lying south of Herzegovina, on the Adriatic Sea. It was formerly tributary to Turkey, but was made independent, with additional territory, by the Treaty of Berlin (1878). The people are hardy mountaineers, distinguished for their bravery. They are governed by an hereditary prince, and a State Council, or legislature, one-half of whom are chosen by the prince, and the other half elected by the people. *Cettinge* (1,500) is the capital.

FOREST AREA OF EUROPE.

According to one authority, the following table shows the forest areas of the principal countries of Europe, as compared with the total areas of the respective countries:

Country.	Area of Country—Acres.	Area of Forest—Acres.	Percentage.
Russia	1,339,353,795	503,880,000	40
Sweden and Norway	182,387,035	62,315,939	34
Austria-Hungary	153,767,380	45,309,213	29
Germany	133,628,986	34,969,671	26
Turkey	114,761,634	25,443,284	22
Italy	62,651,550	14,228,978	22
Switzerland	9,971,390	1,788,786	18
France	130,557,555	22,087,716	17
Greece	11,979,500	1,721,030	14
Spain	116,792,223	8,523,836	7
Belgium	7,267,975	501,405	7
Holland	8,441,225	509,160	7
Portugal	22,819,095	1,165,420	5
Great Britain and Ireland	76,605,321	3,116,819	4
Denmark	13,870,285	464,360	3
Total	2,384,854,949	726,685,617	30

The Himalayas.

ASIA.

Area, 15,000,000 square miles; population, 850,000,000; persons to square mile, 50.

Asia is bounded on the north by the Arctic Ocean; on the west by the Ural Mountains, Ural River, Caspian Sea, Mount Caucasus, Black Sea, Sea of Marmora, Mediterranean, and the Red Sea; on the south by the Indian Ocean; and on the east by the Pacific Ocean.

It is the largest and most populous of the great divisions of the globe, and is particularly interesting as having been the first abode of man, and the scene of most of the important events recorded in the Bible.

Its chief **physical features** are as remarkable as its extent, the rivers being of great length, and equalled by only some of the largest in America; while its mountains are the highest in the world, and its high table-lands are nowhere surpassed for their vast extent, or height above the sea.

The two great chains of the *Himalaya* and *Altai Mountains*, extending across the broadest part of Asia from west to east, under various names, form the most striking feature of the continent, and divide it into three regions, viz., a great northern plain, sloping towards the Arctic Ocean, through which the *Obi*, *Yenisei*, and *Lena* rivers flow; a central mountainous region, which is subdivided by other mountain chains; and a southern slope towards the Indian Ocean, divided into three great peninsulas. Between the two great ranges the slope is mainly eastward, and this vast valley contains the minor parallel chains of the *Thian Shan*, *Kuenlun*, and *Karakorum* or *Mustagh*, and the mountains of China, forming the basins of the great rivers *Amoor*, *Hoang-ho*, and *Yang-tse-Kiang;* a smaller western slope is shown by the course of the *Amoo* and *Sir*, flowing into the Sea of Aral. From the Himalayas and their continuations east and west is a southern slope, as shown by the courses of the rivers *Mekong* or *Camboja*, *Saluen*, *Irrawady*, and others in Farther India; the *Ganges*, *Brahmaputra*, and *Indus*, in Hindostan; and the *Tigris* and *Euphrates* in Asiatic Turkey.

Besides the great chains already mentioned are the *Yunling Mountains*, between China and Thibet; the *Hindoo Koosh*, a prolongation of the Karakorum range, running along the north-westerly boundary of Kafiristan into Afghanistan; the *Elburz* range, extending from the Hindoo Koosh to the southern extremity of the Caspian Sea; the mountains of *Armenia*, among which is the celebrated *Mount Ararat;* the parallel chains of the *Taurus* and *Anti-Taurus Mountains*, in Asia Minor; and from the eastern extremity of the Taurus range, the mountains of *Lebanon* extend southward in two ranges along the coast of the Mediterranean, and are continued by smaller chains to the *Sinaitic Mountains*, at the head of the Red Sea.

The **Himalayas** are the highest mountains of Asia and of

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the world, about one hundred and twenty of their peaks rising over 20,000 feet in height. *Mount Everest* is 29,002 feet, and *Kanchinjinga* 28,156 feet high. The *Karakorum* or *Mustagh* range is another stupendous chain, scarcely inferior to the Himalayas in magnitude. It runs through Kashmir and Thibet, north of the valleys of the Indus and Tsanpu or Brahmaputra, parallel with the Himalayas. Its direction is south-easterly as far as Lake Namcho or Tengri Nor, where it turns southerly and joins the Himalayas at the east end of Bhotan. Several of the peaks are over 25,000 feet high, and it culminates in *Mount Dapsang* (28,278), the second highest mountain in the world.

The principal **rivers** of Asia already mentioned are of great length and volume, and many of them are navigable for long distances. Those of Siberia, however, are almost inaccessible, as they flow into the Arctic Ocean.

The **table-lands** of Asia are of great extent, and occupy a large portion of the continent, extending from the Mediterranean Sea to the Sea of Japan, a distance of upwards of 5,000 miles, and varying from 400 to 2,000 miles in breadth. The largest and most elevated is the great central plateau between the Altai and Himalaya Mountains, including the *Desert of Gobi* or *Shamo*, from 4,000 to 10,000 feet high, and the plateau of *Thibet*, from 10,000 to 15,000 feet high. West of it are the *Desert of Iran*, in Persia and Afghanistan, and the table-lands of *Armenia*, *Asia Minor*, and *Arabia*.

The principal Lakes are:

Baikal and *Balkash*, in Siberia, and the *Dead Sea* in Syria; besides the inland salt lakes, the *Sea of Aral*, and the *Caspian Sea*.

As in Europe, the outline or **coast-line** of Asia is much broken, and islands, seas, gulfs, bays, and straits are numerous.

The principal Peninsulas are:

Asia Minor, on the west; *Arabia*, *Hindostan*, *Malaya* or *Malacca*, and *Anam*, on the south; and *Korea* and *Kamschatka*, on the east.

The principal Islands are:

Cyprus, in the eastern end of the Mediterranean; *Ceylon*, the *Laccadive*, *Maldive*, *Andaman*, and *Nicobar Islands*, in the Indian Ocean; *Sumatra*, *Java*, *Borneo*, *Celebes*, the *Moluccas* or *Spice Islands*, and *Philippines*, in the Eastern Archipelago; and *Hainan*, *Formosa*, *Loo Choo Islands*, the *Japan Islands*, *Saghalien*, *Kurile*, and *Aleutian Islands*, in the Pacific.

The principal Seas and Gulfs are:

The *Levant*, *Red Sea*, *Arabian Sea*, *Persian Gulf*, *Gulfs of Cutch* and *Cambay*, *Bay of Bengal* and *Gulf of Martaban*, *China Sea* and *Gulfs of Siam* and *Tonquin*, *Yellow Sea*, *Gulf of Pechelee*, *Japan Sea*, and *Sea of Okotsk*.

The principal Straits are:

Babelmandeb, *Ormuz*, *Gulf of Manaar* and *Palk Strait*, *Straits of Malacca* and *Corea*, *Gulf of Tartary* and *Behring Strait*.

The principal Capes are:

Baba, the most westerly point of Turkey in Asia, *Ras al Had*, *Comorin*, *Romania*, *Camboja*, *Lopatka*, *East Cape* and *North-East Cape*.

The **climate** of Asia is, in general, warmer than that of North America in the same latitude; but the high table-lands are subject to violent extremes. In the north it is excessively cold; in the middle it is dry, and almost rainless; and in the south hot. In the east it is more moist than in the west; in the south, the seasons are divided into wet and dry, and their changes are accompanied by a change in the winds, called the monsoons, or season winds.

The tundras, as the lands lying along the Arctic Ocean are called, are barren wastes. The northern plain of the continent, lying south of the tundras, is forest land; the great central table-land is either agricultural and pastural land, or sandy desert; while Farther India and Malaysia possess immense tropical forests. On the southern slope of the Himalayas vegetation becomes most luxuriant, producing the plants and grains of all the zones, according to the elevation. China is famous for its tea and rice. In the southern part of the continent, and in the islands, coffee, cotton, rice, ginger, pepper, and spices are produced in great abundance; while the forests furnish palm, teak, sandalwood, gamboge, and caoutchouc trees. Jungles cover a large part of the country in the south and south-east, affording refuge to the lion, tiger, leopard, elephant, and great numbers of large and venomous serpents and other reptiles. In the north are found the bear, wolf, reindeer, ermine, marten, and many other fur-bearing animals; horses, camels, and dromedaries abound in the middle and south-westerly region. Iron, tin, copper, coal, and other minerals are found in various parts. Precious stones are found in India.

The most densely peopled parts of Asia are China and Hindostan. The inhabitants of Asia are generally of the Caucasian race in the south-west; Mongolians in the middle and east; and Malays in Malacca and the East India Islands. They almost all profess either the worship of Brahma or Buddha in the south, and the system of Confucius in China, or they are followers of Mohammed in the west, which is the centre and cradle of Mohammedanism. There are native Christians in Syria and Armenia, and the Russian colonists of Siberia belong to the Greek Church.

The Countries of Asia are:

Turkey in Asia.
Arabia.
Persia.
Afghanistan.
Beloochistan or Baluchistan.
India or Hindostan.
Eastern Peninsula, comprising Burmah, Siam, Anam, etc.
Chinese Empire, including Thibet, Mongolia, etc.
Independent Turkestan.
Russia in Asia.
Japan.

1. Zebu. 2. Bactrian Camel. 3. Tiger. 4. Leopard. 5. Rhinoceros. 6. Indian Bison. 7. Indian Buffalo. 8. Tapir. 9. Yak. 10. Ermine. 11. Porcupine. 12. Ant-Eater. 13. Cheetah. 14. Argus Pheasant. 15. Musk Deer. 16. Cobra di Capello.

To the Teacher.—The Zebu, or Indian Ox, is used as a beast of burden and of draught, especially in agriculture. The zebu has always been held in high honor by the Brahmins, and he is treated with great consideration by them, being allowed to do almost everything that he pleases; it is thought wrong to beat him.—The Bactrian or two-humped Camel is larger and more robust than the Arabian or one-humped Camel, and is much rarer. It is found in the more northerly and easterly parts of the continent, and can endure the severe winter cold of those regions.—The Leopard, unlike the tiger, is seldom found in open jungles; it haunts woody places. It is, however, far more common than the tiger, and is equally destructive of life and property.—The Cheetah, or Hunting Leopard, is found only in southern India. It is trained to hunt deer, and the swiftness with which it bounds upon its prey when let loose from the hunting-cart exceeds that of any other animal.—The Rhinoceroses found in Asia are usually one-horned, and in descriptions of them the fabulous accounts of the unicorn probably had their origin; but two-horned varieties are also found.—The Indian Bison, or "Gaur," is a large and powerful animal, sometimes seven feet high. The pursuit of the bison is as dangerous and exciting as that of the tiger or elephant.—The Indian Buffalo, whether wild or domesticated, is a strong and dangerous beast; of all the animals of Asia the buffalo alone will charge upon man unprovoked. He is fond of immersing himself in water and of wallowing in mud.—The Malayan Tapir is found in Malacca and Sumatra; it is larger than the American tapir, and while its forward parts are of a glossy black color, its back, rump, and belly are white.—The Ermine is a sort of weasel. Its fur, reddish-brown in summer, turns to a snowy-white in winter, except the tip of its tail, which always remains a jet black. Furriers insert these jet black tips at regular intervals in the snow-white skin, and thus make the highly valued ermine of commerce.—The Porcupine is quite common throughout southern Asia.—The Ant-Eater of India differs from the American Ant-Eater in that its body is covered with scales instead of hair.—The Argus Pheasant, so called from the beautiful eye-like marking of its plumage, is a native of Malacca and the East Indies.—The Cobra di Capello, though the most venomous of serpents, is timid, and may be easily killed.

TURKEY IN ASIA.

Area, about 682,931 square miles, about three times the size of Quebec; population, 21,608,000; persons to square mile, 31.

Turkey in Asia is bounded on the north by the Black Sea and Russia, on the west by the Grecian Archipelago and the Mediterranean Sea, on the south by Arabia, and on the east by Persia.

It comprises *Asia Minor*, *Armenia*, *Syria* (including Palestine), *Kurdistan* (the ancient Assyria), *Irak-Arabi* (the ancient *Chaldea*), and *Algezirah* (the ancient Mesopotamia). These countries are all celebrated in the records of the Holy Scriptures, both Old and New, and for that reason form a peculiarly interesting study. It also comprises all the western, and part of the eastern divisions of Arabia.

The islands of *Cyprus* and *Rhodes*, in the Mediterranean, with *Mitylene*, *Scio*, *Samos*, and all the Asiatic islands of the Grecian Archipelago, belong to Turkey. Cyprus, however, is occupied and administered by Great Britain, under treaty with Turkey.

Asia Minor comprises the peninsula between the Black Sea and the Mediterranean. The greater part of the country consists of a high plateau, enclosed by the *Taurus Mountains* on the south, and the parallel range of the *Anti-Taurus* on the north, both extending close along the coast. The former are the higher, some of the peaks reaching to 13,000 feet in height.

The **rivers**, owing to the mountainous nature of the country, are small and rapid, but are numerous, and many of them celebrated in ancient history. The principal are the *Kizil Irmak*, the ancient Halys, formerly the boundary between Lydia and Media; the *Sakaria*, flowing into the Black Sea; and the *Meander* and *Sarabat*, flowing into the Archipelago. There are several salt lakes in the interior.

The **climate** on the plains is hot and dry, but healthy, and in the mountain-lands cool and pleasant. The soil is fruitful, especially in the valleys, but much neglected. Grain, tobacco, cotton, and all southern fruits, such as figs, olives, grapes, and pomegranates, grow in abundance. The elevated parts of the country afford excellent pasturage to large flocks of sheep and herds of cattle. Along the shore of the Black Sea a dense forest covers the land.

The **commerce** of the country is chiefly in the hands of the Greeks, Armenians, and Jews. The people are chiefly Mohammedans, but a large number belong to the Greek and Armenian churches. The population is about eleven millions.

Smyrna (200,000) is the chief commercial city of Asia Minor, and makes large exports of dried fruits. It is situated on a fine bay, and claims to have been the birth-place of Homer. *Scutari*, opposite Constantinople; *Brusa*, (36,000), near the foot of Mount Olympus; *Kutaya* and *Angora*, on branches of the Sakaria, the latter celebrated for its silky-haired goats, are the most important towns; *Trebizond* (45,000) and *Sinope* are ports on the Black Sea; *Tokat* has copper mines and manufactures. *Tarsus*, celebrated as the birthplace of St. Paul, is on the southern coast, opposite the island of Cyprus.

Armenia lies to the east of Asia Minor, between it and the Russian Province of Transcaucasia, south of the Caucasus Mountains. It much resembles Asia Minor in physical features, climate, and productions, but is still more mountainous. The land of Eden is supposed to have been in Armenia; and *Mount Ararat*, upon which the ark rested after the flood, is on the borders of Armenia, Persia, and Transcaucasia. It rises in two peaks, the highest being 17,112 feet high. The rivers *Euphrates* and *Tigris* rise in the mountains of Armenia, and flow southwards into the Persian Gulf; and the *Kur*, with its tributary the *Aras*, flows into the Caspian Sea.

Erzeroum (60,000), the largest city, is situated on an elevated plain, 6,000 feet high, near the source of the Euphrates.

Syria and Palestine.

Area, 115,144 square miles; population, 2,676,943; persons to square mile, 23.

Syria extends southwards from the Taurus Mountains, along the eastern shore of the Mediterranean, and includes also Palestine, or the Holy Land.

From the Taurus range the mountains of Lebanon stretch southwards in two parallel chains, called the *Libanus* and *Anti-Libanus*—the latter terminating in *Mount Hermon*, 9,381 feet high, its peak covered with snow for the greater part of the year. Between these ranges lies Cœle-Syria, or Hollow Syria. Mount Carmel, on the coast, forms a bold and lofty promontory to the south of the Bay of Acre. In the north, the river *Orontes* rises and flows past Antioch into the Mediterranean. Near Mount Hermon are the sources of the *Jordan*, which flows southwards through the *Sea of Galilee*, or *Tiberias*, so celebrated for the stirring scenes which occurred there during the life of our Lord upon earth. From this lake the Jordan flows into the *Dead Sea*, after a course, including many windings, of about 200 miles. The Dead Sea is a lake many times salter than the ocean, and is 1,300 feet below the level of the Mediterranean; and the Jordan, for the greater part of its course, is also below the level of the sea, being the only known instance of such an extraordinary depression. The mountains of Lebanon are continued southwards by the mountains of Palestine; and still farther by the mountains of *Seir*,

terminated at the extremity of the peninsula at the head of the Red Sea by the Sinaitic group, on one of which Moses received the Ten Commandments. One of the same group is *Mount Horeb*, where Moses saw the burning bush. To the east of Jerusalem is the *Mount of Olives*, the favorite resort of our Saviour. To the east and south of Syria is a great sandy desert, extending into Arabia, and inhabited by wild and rapacious tribes of Arabs, who live by pasturing their flocks and by plunder.

The **climate** in the valleys is hot, and the soil is naturally rich, but it is poorly cultivated, and, owing to long neglect, has become sterile and barren. Grain, olives, figs, grapes, and pomegranates grow abundantly with but little labor, and the land would be literally a "land flowing with milk and honey," if its resources were developed.

The mountains of Lebanon are inhabited by two independent tribes: the Maronites, a kind of Christians; and the Druses, a brave and warlike race, whose religion is a mixture of Christianity and Mohammedanism.

Damascus (200,000) is the largest and most important city of Syria, and one of the oldest in the world, having been in existence in the time of Abraham. It lies on the route of the caravans to Mecca, and carries on a large trade in silks, jewellery, etc. *Beyrout* is the seaport of Damascus, and has also a large trade in silks, oil, and wine. *Aleppo* (120,000) is the capital of Syria, and carries on an extensive trade in cotton and silk manufactures. In 1822 it was nearly destroyed by an earthquake, and 20,000 persons lost their lives. *Antioch*, on the Orontes, was formerly a city of great importance. *Baalbec*, in Cœle-Syria, and *Palmyra*, the Tadmor of the Old Testament, in the Syrian desert, 130 miles north-east of Damascus, are remarkable for the remains of their ancient temples and buildings.

By **Palestine** is generally understood the country extending south from the mountains of Lebanon to the southern end of the Dead Sea; and from the Mediterranean Sea across the River Jordan to the Syrian Desert. It was called the Land of Canaan in patriarchal times; the Land of Israel from the time of its conquest by the Israelites under Joshua; and after the division of the kingdom at the death of Solomon, the northern part, occupied by the Ten Tribes, was known as the Kingdom of Israel, with Samaria as its capital, and the southern part as the Kingdom of Judah, with Jerusalem as its capital. After the return of the Jews from the Babylonian captivity, they re-occupied mainly the southern part of the country, which has ever since been known as Judea; while the central part was called Samaria, and the northern part Galilee.

Jerusalem (28,000), the celebrated capital of ancient Judea, is now sadly fallen in importance. Only about one-fourth of its inhabitants are Christians, and the Mosque of Omar now occupies the site of the ancient Jewish temple. It is only half the size it was before its destruction by Titus. Most of the interesting spots memorable in the life of our Lord are still pointed out, and churches have been erected upon them. It is much visited by pilgrims and travellers. *Jaffa*, the port of Jerusalem, is the ancient Joppa. *Tyre* and *Sidon*, formerly important cities and seaports on the coast, are almost deserted; *Bethlehem*, the birthplace of our Lord, six miles south of Jerusalem, is now a straggling village. *Hebron* is ten miles farther south. *Nablous* is the ancient Shechem or Sychar, near which was Jacob's Well. *Acre*, on the coast, near Mount Carmel, is famous in later times for the sieges it has withstood. *Gaza*, to the south-west of Jerusalem, is still an important town, carrying on trade between Palestine and Egypt.

Kurdistan, Irak-Arabi, and Algezirah.

These countries, representing the ancient Assyria, Chaldea, and Mesopotamia, occupy the south-eastern part of Turkey. Kurdistan, on the borders of Armenia, is mountainous; but the greater part of the country is a level plain, through which the *Tigris* and *Euphrates* flow south-east into the Persian Gulf. These rivers overflow their banks when the snow melts on the mountains, and for a brief period the plains are covered with vegetation; but the hot sun soon scorches it all up. Along the course of the rivers, vines, rice, and date-palms flourish, but the rest of the country is desolate, and is infested by warlike tribes of plundering Kurds and Arabs.

Lake Van, in the north, is 5,500 feet above the sea, and about one-fifth the size of Lake Ontario.

Bassora or *Bussorah* (200,000), near the Persian Gulf, has a large trade with Persia and the East. *Bagdad* (180,000), on the Tigris, was long the capital of the Mohammedan Caliphs, and is an important starting-point for caravans. *Mosul* (45,000), on the Tigris, has fine cotton manufactures, and from it muslin derives its name. Opposite to it the interesting remains of ancient Nineveh were discovered by Layard. *Diarbekir* has copper mines. *Hillah* occupies the site of ancient Babylon. Near it is the mound called *Birs Nimrod*, supposed to be the ruins of the famous Tower of Babel.

ARABIA.

Area, 173,700 square miles, nearly seven times the size of New Brunswick; population, about 6,000,000; persons to square mile, about 34.

Arabia is a peninsula bounded on the north by Turkey in Asia; on the west by the Isthmus of Suez and the Red Sea; on the south by the Indian Ocean; and on the east by the Persian Gulf and Irak-Arabi.

It is a vast sandy desert, rising in the interior into a table-land, from 5,000 to 8,000 feet high, and sloping principally towards the Persian Gulf. It is most abrupt on the west and south coasts. Little is known of the interior of the country, but recent travellers have found considerable towns and a numerous population in the northern central parts. The Syrian desert is in the possession of wandering tribes of Arabs called Bedouins, who live by plundering the caravans and by pasture.

The *Strait of Babelmandeb* is at the entrance of the Red Sea, and the *Strait of Ormuz* at the entrance of the Persian Gulf. *Cape Ras el Had* is the south-eastern extremity. The *Mountains of Sinai* are in the peninsula extending into the Red Sea at its northern extremity.

The **climate** is excessively hot, and the simoom, or burning wind of the desert, renders travelling very dangerous, as the sand sometimes moves like the waves of the sea, overwhelming everything. The soil on the coast is fertile, producing coffee, myrrh, frankincense, and dates and various other fruits. In the Persian Gulf are valuable pearl fisheries. Arabia is celebrated for its horses. The camel is the only animal which can endure the fatigue of traversing the desert.

Hedjaz and *Yemen* in the west, and *El Hasa* in the east, are tributary to Turkey; the south-east belongs to the Sultan of Muscat; in the interior is the kingdom of Nedjed.

Mecca (45,000), the birthplace of Mohammed, 60 miles from the Red Sea, and *Medina*, containing his tomb, farther north, are the holy cities of the Mohammedans, and are visited by vast numbers of pilgrims, as Mohammedans are enjoined to visit Mecca at least once in their lives. *Jeddah* (30,000) is the seaport of Mecca.

Sana is the capital of Yemen, and *Mocha*, celebrated for its coffee, is the chief seaport. *Aden*, at the entrance of the Strait of Babelmandeb, has belonged to Britain since 1839.

Muscat (60,000), on the east coast, is the capital of Oman, the most enterprising and maritime country in Arabia, and even in western Asia. It carries on an important trade in gums, myrrh, and frankincense, a large portion of which is brought from Africa.

Riad (30,000), in the centre of the country, is the capital of the kingdom of Nedjed and the chief town of the Wahabees, a particularly strict sect of Mohammedans.

The ruins of *Petra*, the ancient capital of Edom, in the north, about midway between the Dead and the Red Seas, consist of a long street or narrow valley, in which houses, temples, and all the buildings are hewn out of the solid rock; and are amongst the most interesting ancient remains in existence.

PERSIA.

Area, 628,000 square miles, about one-third larger than Ontario, Quebec, and Newfoundland; population, about 9,000,000; persons to square mile, 12.

Persia is bounded on the north by Asiatic Russia, the Caspian Sea, and Turkestan; on the west by Turkey; on the south by the Persian Gulf; and on the east by Afghanistan and Baluchistan. It was formerly a nation of great importance, forming one of the most powerful empires of ancient history, but is now sadly reduced. About one-fifth of the people are nomadic; including 700,000 Turks, about the same number of Kurds, and large numbers of Arabs, Baluches, Gipsies, and Lurs.

The **surface** is mountainous, especially in the north and west, where the *Elburz Mountains* extend from Afghanistan to the mountains of Armenia. The highest summit is Mount Demavend, about 20,500 feet high. The interior is a high plateau about 3,000 feet above the sea, forming part of the great *Desert of Iran*, which extends into Afghanistan. The rivers are few and small, and either lose themselves in the sand, or flow into lakes so salt that fish cannot live in them. The largest of these lakes is Urumiah, in Kurdistan, a salt lake 4,000 feet above the sea, and about one-fourth the size of Lake Ontario. Along the shore of the Caspian Sea, and wherever there is water, vegetation is luxuriant, and cotton, the sugar-cane, and mulberry, fig, and pomegranate trees abound. In the south it is hot, dry, and arid, and the date-palm is the only tree that will grow.

The Persians are a gay, polite, and hospitable people. They carry on large manufactures in fine silks, carpets, and brocades. Two-thirds of the people are engaged in pastoral pursuits. The sheep of Persia are famous for their size. Trade is chiefly in the hands of the British and Russians, the latter having almost exclusive control of the navigation on the Caspian Sea. The government is a despotism, under a ruler called the Shah, and the religion is the Mohammedan, mainly of the sect Shia'h, differing to some extent from the Sunnis of the Ottoman empire.

Ispahan (60,000), the former capital, is situated on a high plain in a well-cultivated district. *Teheran* (210,000), the capital, is in the desert, where the climate is so hot and unhealthy that in summer the city is almost deserted. *Shiraz*, near the Persian Gulf, is in the centre of a fertile and beautiful valley. North of it are the ruins of *Persepolis*, among which are supposed to be those of the palace of Darius, destroyed by Alexander the Great. *Bushire*, on the Persian Gulf, is the chief port. *Tabriz* (180,000), near lake Urumiah, *Meshed* (60,000), *Yezd*, and *Hamadan*, the latter on the caravan route to Bagdad, are important towns. *Reshd* and *Astrabad* are ports on the Caspian.

AFGHANISTAN.

Area, 278,650 square miles; larger than Quebec, New Brunswick, and Nova Scotia, together; population, about 4,500,000; persons to square mile, 16.

Afghanistan is situated between Persia and the northern part of India. It is mountainous in surface, and in the south-west the Persian desert extends into the country. In the north-east are the *Hindoo Koosh Mountains*, some of them rising 20,000 feet in height; and from these the *Suliman Mountains* extend southwards into Baluchistan.

Owing to the elevated position of the country, it is subject to great extremes of heat and cold, but the mountains enclose many rich and fertile valleys. There are two harvests in the year in most parts of the country: one, consisting of wheat, barley, peas, and beans, is sown in fall and reaped in summer; the other is sown in the end of spring and is reaped in autumn. It includes rice, millet, and Indian corn. The castor-oil plant, madder, and the asafœtida plant abound. Fruit of all kinds is plentiful, and largely used as food. Two famous mountain passes lead from the high plateaus of Afghanistan to the valley of the Indus. They are the Khyber Pass and the Bolan Pass, and are on the two great roads between India and the West.

The towns are chiefly inhabited by Persians and Hindoos, who carry on the trade; while the Afghans are principally priests or soldiers, holding trade in contempt. They are divided into a number of semi-independent tribes, but unite for the common defence of the country. They were formerly very powerful, and had possession of a large part of Western India. Most of the inhabitants are Mohammedans of the Sunni sect.

Kabul (60,000), the capital, is situated 6,400 feet above the sea, and is surrounded with gardens. It is the key of Hindostan on the west. *Kandahar* and *Herat* are the other principal towns. Herat carries on extensive manufactures, and is an important station on the caravan route between Persia, Russia, and India. Its occupation by the Persians caused the war of Britain with Persia in 1856.

Bolan Pass.

The lofty Suliman range would oppose a complete barrier between India and Afghanistan and Baluchistan, were it not for its remarkable "passes," of which Khyber Pass and Bolan Pass, called the "gateways of India," are the most used. The famous Bolan Pass ascends to a height of one mile above the sea level. It is 60 miles long, and its walls are perpendicular cliffs, often 600 feet high. In this narrow defile a small regiment could easily withstand an army.

BALUCHISTAN.

Area, 130,000 square miles, about four and a half times the size of New Brunswick; population, about 500,000; persons to square mile, 4.

Baluchistan lies to the south of Afghanistan, between it and the Arabian Sea. It is to some extent dependent on India, and is therefore, so far, subject to Great Britain. It is mountainous and desert in the north, and along the coast is a dry arid tract, where nothing but the date-palm will grow. The country is divided between the Baluches in the west, and the Brahuis in the east. Both are pastoral, and profess Mohammedanism. The Hindoos carry on the trade.

Kelat (13,000), in the north-east, is the chief town. It is 7,000 feet above the sea.

Kafiristan.

Area, about 20,000 square miles, about the size of Nova Scotia; population, about 500,000; persons to square mile, 25.

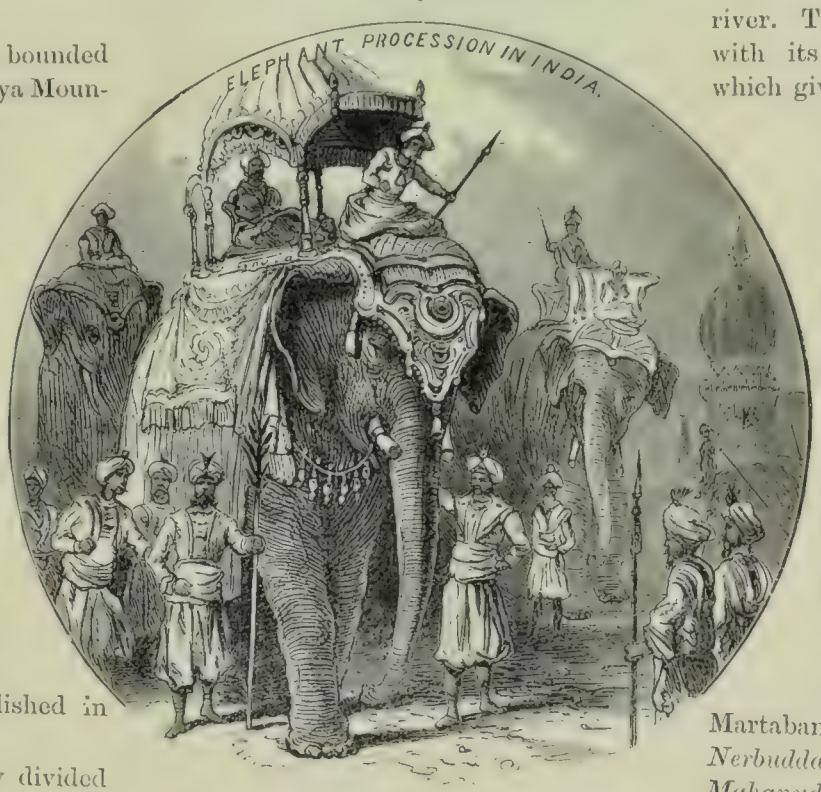
Kafiristan, which may be called the Switzerland of

Asia, is a small mountainous country lying between the Hindoo Koosh Mountains and North-western India. It is chiefly interesting on account of the people (who are called the Siah-Posh Kafirs), who belong to the Caucasian race, having light hair, fair skins, and blue eyes, and who, though repeatedly attacked by their more powerful neighbors, have managed to retain their independence.

Candaish (2,500) is the principal town.

INDIA, or HINDOSTAN.

Area, 1,587,104 square miles; population, 220,500,000, or, including the dependent states, 286,986,960; persons to square mile, 186.



India, or **Hindostan,** is bounded on the north by the Himalaya Mountains; on the west by Afghanistan, Baluchistan, and the Arabian Sea; on the south by the Indian Ocean; and on the east by the Bay of Bengal and Burmah.

The greater part of India is now in the possession of the British, or tributary to them. It was formerly under the control of a large trading organization called the East India Company, but since 1858 has been under the direct control of the British Government. The first factory of the East India Company was established in 1612.

The country is naturally divided into three parts: the basin of the Indus in the north-west, the basin of the Ganges in the north-east, and the southern peninsula between the Arabian Sea and the Bay of Bengal, including the Dakhan, a table-land enclosed by the Eastern and Western Ghauts and the Vindhya Mountains.

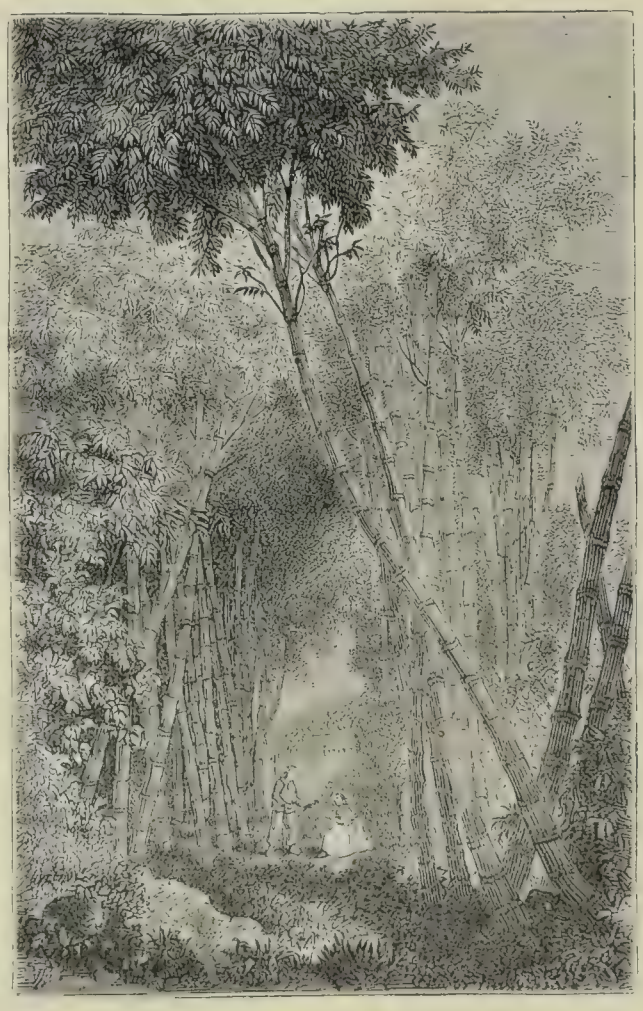
The enormous mass of the *Himalayas* extends along the north, rising to their greatest height in the eastern part of the range, where Mount Everest reaches 29,002 feet in height, being the highest known mountain in the world. The *Western Ghauts* extend along the western coast, and the *Eastern Ghauts* along the eastern coast at a distance of about forty miles from the sea. The western are the highest, rising about 4,000 feet, and their southern continuation, the Neilgherries, rise to about 7,000 feet. The *Vindhya Mountains* and *Aravulli Hills* are in the west.

The general **slope** of the country is towards the east, as shown by the course of the rivers. India is well watered, but owing to the height of the sources of the principal rivers, they are not generally well adapted for navigation. The *Ganges* rises in the Himalayas at a height of about 14,000 feet, receiving the *Gogra*, *Jumna*, and other tributaries, and flows into the Bay of Bengal by a number of mouths, after a course of 1,500 miles. It is navigable for steamers as far as Cawnpur, and so is the Jumna as far as Delhi. The *Brahmaputra* and the *Indus* rise on the north side of the Himalayas in Thibet, and flow east and west respectively, turning the ends of the Himalaya chain. The Brahmaputra joins the eastern mouth of the Ganges, and is a very rapid river. The Indus receives the *Sutlaj* with its three main tributaries—which give the name of the Panjab, or "Five Rivers," to the country through which they flow—and after a course of 1,800 miles, falls into the Arabian Sea. The lower part of its course is through a desert composed of sandy plains and jungles. The *Irrawady* rises in Assam, and flowing almost due south past Mandalay and Ava, empties itself by several mouths into the Bay of Bengal and the Gulf of Martaban. The *Salween*, somewhat smaller, flows almost parallel with the Irrawady into the Gulf of Martaban. The other rivers are the *Nerbudda*, flowing west, and the *Mahanuddy, Godavery, Krishna*, and *Kaveri*, flowing east.

The western coast is called the *Malabar Coast*, and the eastern the *Coromandel Coast*. *Cape Comorin* is the southern extremity of the continent.

The **climate** of India varies according to latitude and elevation above the sea. The great height of the Himalayas, and the highlands sloping from them towards the south, give every variety of climate, from that of perpetual snow to that of the torrid zone. Like other tropical countries, the seasons are divided into the wet and the dry, and their changes coincide with the periodical monsoons or season winds. The monsoons blow from the south-west in summer and from the north-east in winter, and the changes produce violent storms. In Bengal the hot season is from March to the end of May, and the wet season from June to October.

During the heavy rains, the rivers, especially the Ganges and Brahmaputra, overflow their banks to a great distance, rendering the soil very fertile. Rice is the great staple and general food of all classes. Opium, indigo, sugar, tea, and cotton are largely cultivated and exported. The teak, banyan, bamboo, mangrove, and a variety of palms, are the principal trees. The teak is as valuable for ship-building as the oak. A single banyan tree covers a large space of ground, as each branch curving downwards, takes root, and produces other branches. Of late years the cinchona tree, from which Peruvian bark and quinine are obtained, has been largely planted. The soil in many parts is not cultivated, and is covered with jungles, affording a refuge for tigers, elephants, and other wild animals. India is rich in minerals, and especially in precious stones. The Hindus excel in manufactures of ivory, silks, fine muslins, and cottons. The shawls of Kashmir, made from the hair of the Kashmir goat, are unrivalled.



Bamboo Grove.

Hindus form the greater part of the population; and although the country belongs to Britain, it contains very few Europeans, and these are chiefly military. The native soldiers in the pay of the British are called Sepoys. The natives are mostly pagans, holding sacred Brahma, Buddha, Vishnu, the Ganges, and many animals. Widows were formerly burnt on the funeral piles of their dead husbands, and children were thrown into the Ganges, but the Government has now prohibited these and some other customs. In the north-west there are great numbers of Mohammedans. The most remarkable feature in Hindu society is the division of the people into four castes—Brahmins or priests, soldiers, merchants, and laborers. None of these may intermarry, or even eat and drink together. Those who have been degraded from their caste are called pariahs, and are outcasts from society, but the tendency of British influence is to modify this absurd and demoralizing custom. Twenty-one native languages are spoken, the chief of which are Hindustani by 82,500,000, and Bengali by 40,000,000.

BRITISH INDIA.

Area, 944,108 square miles; population, 220,530,200; persons to square mile, 234.

British India, with its dependencies, was formerly divided into three parts, the Bengal, Madras, and Bombay Presidencies, but now forms nine provinces, the whole being under the control of the Governor-General and Supreme Council of India.

These are: *Bengal,* comprising the country watered by the lower courses of the Ganges and Brahmaputra, and extending from Patna on the west to Chittagong on the east and Chilka Lake on the south; the *North-west Provinces* (including *Oudh*), along the courses of the Ganges and Jumna, from Delhi to Patna; the *Punjab*, or "Five Rivers," situated on the tributaries of the Indus in the north-west (these three provinces are under Lieutenant-Governors); the *Central Provinces*, situated south-west of Bengal Proper (governed by a Chief Commissioner); *Assam*, on the Brahmaputra, to the north-east; *Burma*, in Farther India; *Madras* and *Bombay*, comprising the east and west coasts respectively; and the *Detached Provinces* under the direct control of the Governor-General.

Bengal.—Area, 149,725 square miles; population, 70,909,000. This province lies along the lower courses of the Ganges and Brahmaputra. At the mouth of the Ganges and extending about 200 miles up, is a swampy district, called the Sunderbunds. It includes Orissa, a district lying to the south-west, which, being ill-watered, is liable to drought. The chief products are rice, opium, indigo, and jute. *Calcutta* (840,000), the largest city, and the capital of British India, is situated on the left bank of the Hugli branch of the Ganges, about 100 miles from its mouth. The river here is about a mile wide, and is generally full of shipping. The citadels, spires, minarets, temples, and villas, extending along the river for a distance of five miles, give the city an aspect of great magnificence; but the native portion is low, dirty, and ill-built.

The European population is only about 20,000. Higher up on the Ganges are *Moorshedabad*, the former Mohammedan capital of Bengal; and *Patna* (167,500), with large exports of rice and indigo.

North-West Provinces.—Area, 106,100 square miles; population, 47,000,000. This province extends north-westerly from Bengal, along the Ganges and Jumna Rivers, as far as Delhi. On the Ganges are *Benares* (222,500), the most holy city of the Hindus; *Allahabad* (176,800), at the confluence with the Jumna, another holy city; and *Cawnpur* (182,300), where many Europeans were massacred during the mutiny of the Sepoys, in 1857. On the Jumna are *Agra* (168,700), the ancient capital of the Mogul Empire, containing the magnificent mausoleum, the Taj Mehal; *Lucknow* (273,100), celebrated for its defence against the Sepoys during the Indian Mutiny; and *Bareilly* (121,800), an important place of trade.

Punjab.—Area, 111,016 square miles; population, 20,807,000. This province lies still farther to the north-west, between the river Jumna and Afghanistan. Its name, which means "five rivers," was given to it in consequence of its being traversed by five main streams, the Indus, Jhelum, Chenab, Ravi, and Sutlej. It includes the former State of Delhi. The principal cities are *Delhi* (193,600), the "Rome of India" in respect of historic associations and splendor; *Lahore* (176,700), the capital; *Amritsar* (136,500), the holy city of the Sikhs, and the chief seat of trade; *Peshawar*, an important fortified town, on the Afghan frontier; and *Multan*, with manufactures of silk.

Central Provinces.—Area, 86,501 square miles; population, 10,775,000. These lie to the south-west of Bengal. The great railway between Bombay and Calcutta passes through the northerly portion. *Nagpur* (118,000) is the largest city; but *Jubbulpur*, on the railway, does the greatest trade. Cotton is the chief product.

Assam lies along the Brahmaputra, to the north-east of Bengal. Area, 46,341 square miles; population, 5,425,000. It is the tea-producing district of India. The principal town is *Gowhati*.

Burma lies to the east of Bengal. Area, 156,000 square miles; population, 7,554,000. The hills are low, but they are densely covered with forests of teak and other valuable timber. Rice is the staple production and chief article of food. *Ava* (50,000), the former capital, is situated on the Irrawady, about 400 miles from its mouth. Near it are large wells of petroleum. *Mandalay* (188,000), a little north-west of Ava, is the capital. *Bhamo*, in the north, carries on the principal trade with China. *Rangoon* (181,200) is the principal port.

Madras.—Area, 142,772 square miles; population, 35,600,000. This province extends along the Bay of Bengal from the province of Bengal to Cape Comorin, and along the Arabian Sea from the native State Travancore, to the Portuguese settlement of Goa or Punjim, at the southerly limit of the province of Bombay. It has a coast-line of about 1,600 miles, but not one good natural harbor. *Madras* (450,000), the capital, is situated on the Coromandel coast. The other principal towns are *Trichinopoli* and *Tanjore*, on the Kaveri, the latter with manufactures of cottons and silks, and celebrated for its temple or pagoda, the finest example of Hindu architecture extant; and *Calicut* (whence the word "calico"), on the Malabar coast, the first port visited by Vasco de Gama.

Bombay extends north of Goa, along the Arabian Sea, as far as Baluchistan. Area, 125,394 square miles; population, 18,827,000. It includes Sind and Gujrat. The capital, *Bombay* (804,500), on an island of the same name, is the most important outlet of trade in India, and the third largest city in the British Empire. The other chief towns are *Poona* (160,500), south-east of Bombay; *Surat* (108,000), north of Bombay, where the first British factory was established in 1611; and *Ahmadabad* (146,000), still farther north, an ancient walled city.

The **Detached Provinces** under the direct control of the Governor-General are *Ajmir*, in the north-west of India, enclosed within the native State of Rajputana; *Berar*, between Bombay and the Central Provinces; and *Kurg*, a small State to the south-west of Maisur in the Dakhan. Area, 12,000 square miles; population, 3,611,000.

NATIVE STATES.

The total number of Native States, large and small, is about 800, and they cover an area of about 643,000 square miles, and contain a population of about 66,000,000. Two of them are quite independent; the others are tributary to the British Government, and to some extent under its control.

The Independent States are:

Nepal and **Bhotan,** both occupying the southern slope of the Himalayas.

Nepal (area, 54,500 square miles; population, about 2,000,000) extends along the slope of the Himalayas at the part where they reach their highest elevation. The lower part is densely covered with forests. *Katmandu*, situated in a valley, is the capital.

Bhotan (area, 16,800 square miles; population, about 50,000), lies east of Nepal and north of the valley of the Brahmaputra. It is separated from Nepal by the small tributary State, *Sikkim*. The Ghoorkas are the ruling race, and are excellent soldiers. The capital is *Punaka*.

The Principal Dependent States are:

Kashmir, north of the Punjab, and containing many fertile valleys. The famous shawls are manufactured there. *Kashmir* (or *Serinagur*), the capital, is situated on the Jhelum, 5,000 feet above the sea.

The **Rajput States,** or **Rajputana,** a number of small States occupying both sides of the Aravulli Hills in the west, with the British territory of Ajmir in the centre.

Scindia Dominions, or **Gwalior,** are situated along the Chambul. *Gwalior*, with a famous hill-fort, is the capital.

Indore, or the **Holkar States,** are along the Vindhya Mountains.

Sikkim, lying south of Thibet, has an area of 1,550 square miles, with a Buddhist population of about 8,000.

Haidarabad, or the Nizam's Dominions, lies south of Berar, between the province of Bombay and the river Godavery. *Haidarabad* (312,400) is the capital. Near it is *Golconda*, famous for its diamonds. *Aurungabad* is the chief town in the north. Near it are the cave-temples of Elora.

Gujrat and **Katch** or **Kutch** are small territories on the west coast. *Baroda* (116,500) is the capital of Gujrat.

Maisur, the territory of the celebrated Hyder Ali, occupies the south of the Dakhan. The Christians form one-eighth of the population, a larger proportion than in any other part. *Maisur* is the capital. *Seringapatam*, on the Kaveri, is strongly fortified. *Bangalore* (179,700) is the largest town.

Cochin and **Travancore** are small States on the south-west coast. *Cochin* is the capital of the first, and *Trivandrum* of Travancore.

French and Portuguese India.

The **French** possess: *Chandernagore*, above Calcutta; *Yanaon*, at the mouth of the Godavery; *Pondicherry*, the capital, on the Coromandel coast; and *Mahé*, on the Malabar coast, near Calicut.

Belonging to the **Portuguese**, *Panjim* or *Goa*, on the Malabar coast, with a capital of the same name; *Diu* and *Damao* in Gujrat.

ISLANDS.

Area, 25,364 square miles; population, 3,008,200; persons to square mile, 118.

Ceylon is rather less than New Brunswick in size, and is situated at the south-eastern extremity of India, with which it is almost connected by a chain of shoals called Adam's Bridge. The *Gulf of Manaar* and *Palk Strait* are between it and the mainland.

It is mountainous in surface, and possesses a much more healthy climate than the mainland. It abounds with precious stones. In the Gulf of Manaar are valuable pearl fisheries.

Colombo (127,000) is the capital and chief seaport, exporting large quantities of coffee. *Trincomalee* possesses a magnificent harbor. *Candy* is the ancient capital. *Galle* (33,500) is an important town.

The **Laccadive** and **Maldive Islands,** on the west, are coral islands. They are low, and of little importance. The **Andaman** and **Nicobar** *Islands*, in the Bay of Bengal, are mountainous, and yield valuable timber.

FARTHER INDIA.

Farther India includes the countries south-west of China and south-east of British India. It comprises Siam, the Laos or Shan States, Anam, Kambodia, French Cochin China, and the Malay Peninsula.

Mountain ranges extend north and south through the peninsula, and between them flow large and important rivers; the *Irrawady* and *Saluen* into the Gulf of Martaban, the *Menam* into the Gulf of Siam, and the *Mekong* into the China Sea. From the south-west the narrow *Malay Peninsula* stretches southwards, and is separated from the Island of Sumatra by the *Strait of Malacca*. Very little is known of the interior. The soil is fertile, producing rice, cotton, sugar, and indigo. The forests are very extensive, and the trees, growing to an enormous size, include teak, sandal-wood, rosewood, cinnamon, and sago and other palms. Laos produces benzoin and gumlac; gamboge is peculiar to Kambodia. The forests are the haunts of vast numbers of monkeys; tigers and elephants also abound. Gold, silver, copper, and tin are found, especially in the eastern parts.

The inhabitants are chiefly Buddhists, except the Malays, who are Mohammedans. In Anam they assimilate more to the Chinese. All the native governments are despotic.

Burma, geographically belonging to Farther India, now forms a province of British India.

Siam (area, 250,000 square miles; population, 6,000,000) lies to the north-east of Burma, and is watered by the Menam River. It includes also the northern part of the peninsula of Malacca. The country is very fertile, producing rice, sugar, cocoa, besides palms and fruits in great abundance. It exports gamboge and gumlac. It is inhabited by a mixed population, consisting of Siamese, Chinese, and Malays. They are mostly Buddhists.

Bangkok (600,000), the capital, is situated on the Menam, about 20 miles from its mouth. A great part of the city is on the river, and is built upon bamboo rafts, each supporting several houses, and arranged into streets. *Ayuthia*, the

former capital, is situated on an island formed by the Menam.

The **Laos**, or *Shan States*, occupy the country watered by the upper part of the Menam, north of Siam, and that watered by the Mekong, east of Siam. They consist of a number of semi-independent States tributary to Siam. The country is fertile, but little known. Most of the trade is with Siam.

French Dependencies.

Anam is watered by the Mekong. In the north and west are vast alluvial plains, very fertile and well cultivated. It produces, besides cereals, tea, coffee, tobacco, sugar, cinnamon, and gamboge. The population is about 5,000,000.

Hué (100,000), the capital, is situated about ten miles from the east coast, on a navigable river, and is strongly fortified.

Tonquin, with an area of 34,740 square miles and a population of 9,000,000, was annexed to France in 1884. It possesses good iron and copper mines. *Hanoi* or *Kesho* (150,000), in the north, has a considerable trade.

Kambodia, to the south of Siam, is a separate State under the protection of France. The present State is only the feeble remnant of a once powerful and flourishing kingdom, the civilization of which is attested by numerous magnificent architectural remains. *Pnom-Penh* (20,000) is the capital.

French Cochin China lies to the south-west of Kambodia, at the mouth of the Mekong. Its climate is fatal to Europeans. *Saigon* (180,000) is the capital.

The **British Straits Settlements** in the Malay Peninsula include *Penang*, or Prince of Wales Island, *Wellesley*, *Malacca*, and the *Island of Singapore*. Their total area is about 14,450 square miles, and their population about 506,577. *Singapore* (142,000), on the island of the same name, and the seat of a large commerce, is the capital.

The **Malay Peninsula** is traversed by mountains from north to south. It is divided amongst a number of petty States. The inhabitants are Mohammedans, and belong to the Malay family. They formerly lived by piracy, but the influence of Britain has in a great measure put an end to it. The forests supply timber and gutta-percha, but trade and industry are altogether neglected.

CHINESE EMPIRE.

Area, 4,218,400 square miles, one and a third times the size of the Dominion of Canada; population, about 402,680,000.

The **Chinese Empire** consists of *China Proper* in the south-east, *Thibet* in the south-west, *Mongolia* in the north, *Manchuria* in the north-east, *Dzungaria* in the north-west, and *Eastern Turkestan* or *Kashgaria* in the west.

It occupies the great central and eastern slope of Asia, is enclosed on three sides by the highest mountains, and watered by three of the greatest rivers of Asia. On the north are the *Altai Mountains*, on the south the *Himalayas*, and on the west the *Pamir*. From the west the *Kuen-Luen* and *Thian Shan Mountains* extend eastwards in two parallel chains through the centre of the country; and in China Proper the *Peling* and *Nanling Mountains* extend also in the same direction. Between these mountain chains flow the *Amur* in the north, the *Hoangho* in the middle, and the *Yang-tse-kiang* and *Chukiang* or *Takiang* in the south.

In the west are table-lands, from 4,000 to 10,000 feet above the sea. The centre is an extensive elevated sandy plain, called the desert of *Shamo* or *Gobi*. Towards the sea-coast the land is lower and more level.

CHINA PROPER.

Area, including the islands Hainan and Formosa, 1,336,841 square miles, nearly half the size of the Dominion of Canada; population, estimated at about 386,000,000; persons to square mile, 289.

China Proper is the most important part of the country, and lies north-east of Burma and Anam. In the west it is mountainous, but more level towards the coast. Between Pekin and Nankin is a vast plain, which is the most densely populated part of the empire. The country is watered by the *Peiho*, *Hoangho*, *Yang-tse-kiang*, *Chukiang*, and other rivers; and the cultivation of the ground is much assisted by numerous large canals. The Great Canal extends from Hangchow to a branch of the Peiho, and is over 700 miles long. It is 200 feet wide at the top, with varying depth, and is carried over all obstructions, making the deepest and largest canal in the world. The coast is washed on the south by the *China Sea*, and on the east by the *Yellow Sea* and *Gulf of Pechili*. In the south the climate is hot, and is subject in summer to typhoons, or terrific hurricanes; but in the north it is milder, although the extremes of heat and cold are great. The soil is fertile, and is most carefully cultivated, no part being allowed to lie idle, in order to be able to support the vast number of inhabitants. China supplies the world with most of its tea. The amount supplied to Great Britain alone in 1890 was valued at upwards of 13,000,000 dollars. Rice forms the principal food of the inhabitants; but wheat and other grains are also cultivated. The mulberry, tallow, and camphor trees—the two latter peculiar to China—are cultivated. Opium is extensively used, and is imported chiefly from India. Gold, copper, coal, and other minerals are found in various parts. The

Chinese are celebrated for their manufactures of silks, porcelain, cotton, ivory, and paper. The manufacture of paper and gunpowder, the art of printing, and the mariner's compass, were known in China long before they were discovered in Europe, and great advancement had been made in astronomy; but for centuries the Chinese have been at a stand-still, and are making little further progress.

Trade with foreigners was formerly confined to the port of Canton. In 1842 several additional ports were opened to foreign commerce, but it was not until 1860, when Pekin was taken and occupied for a time by the British, that the country began to be opened up. At the present time twenty-four ports (called Treaty Ports) are open to foreign trade. Iron, steel, woollens, and other goods are imported from Europe, and cotton and opium from India.

China is the most densely peopled country of its size in the world, although England, Belgium, and other small countries contain a greater number of persons to the square mile. According to the most trustworthy estimates, it contains nearly one-fourth of the whole population on the globe, although less than one-half the size of the United States.

Tea Plantation.

For two centuries China has been governed by a Tatar (commonly spelt *Tartar*) dynasty. The Great Wall on the northern frontier, 1,400 miles long, is supposed to have been built 200 years before the Christian era, and is carried over hills and valleys. It was intended to protect the country from the inroads of the Tatars.

Learning and parental authority are held in high esteem by the Chinese; and the chief men, or mandarins, are selected for their proficiency in learning. The language is monosyllabic, and requires a distinct written character for every word, rendering it one of the most remarkable and difficult in the world. The government is a despotism. The three religions acknowledged by the Chinese are Buddhism, Confucianism, and Taoism. The founders of the two latter flourished about 500 years before Christ.

Pekin (1,000,000), the capital, on the Peiho, is about 50 miles south of the Great Wall. It is divided into two separate towns, the Tatar and Chinese, the former containing the imperial palace and gardens. In 1860 it was captured by an allied British and French force, and the British ambassador now resides there. *Nankin* (150,000), the former capital, is on the Yang-tse-kiang, about 100 miles from its mouth. Nankin contained a famous porcelain tower, which was destroyed by the rebels a few years ago. It is the chief seat of learning, and is noted for its manufactures.

Canton (1,600,000) at one time was the only port with which Europeans could trade. It is situated on the Chu-kiang river, about 70 miles from its mouth. A large part of the population lives in boats on the river. Among the other ports now open to foreigners are: *Amoy* (96,000), situated on the coast opposite the Island of Formosa, with a magnificent harbor; *Foochoiv* (636,000), farther north; *Ningpo* (250,000), with silk manufactures; *Shanghai* (380,000), near the mouth of the Yang-tse-kiang, with the principal foreign trade; *Tien-tsin* (950,000), where the treaty of 1858 was signed; and *Han-kow* (800,000), situated several hundred miles up the Yang-tse-kiang.

Islands. — *Hainan* (2,500,000), to the south, is a large island at the eastern extremity of the Gulf of Tonquin. It is mountainous, and exports timber, rice, sugar, pearls, and coral.

Formosa (3,000,000), separated from China by the strait of the same name, is a large and fertile island, with numerous volcanic mountains. It exports rice, salt, etc.

Hong-Kong (221,500), a small island at the mouth of the Canton River, 40 miles from Macao, and 90 from Canton, became a British settlement in 1842. The chief town is *Victoria* (130,000). *Macao* is a Portuguese settlement, at the mouth of the Canton River.

Thibet lies between the Kuen-Luen and Himalaya Mountains. It consists of high table-lands, having an average altitude of 15,000 feet.

Many large **rivers** take their rise in Thibet, as the *Indus*, *Sutlej*, *Brahmaputra* or *Sanpu*, and *Yang-tse-kiang*. *Lake Palte* is a remarkable ring of water round an island 100 miles in circumference. *Lake Namcho* or *Tengri Nor* is remarkable for its great elevation, being 15,200 feet above the level of the sea.

The **climate**, owing to the great elevation, is in winter cold and dry, but it is hot in summer; and owing to the refraction of the heat from the plains, the snow-line on the Thibet side of the Himalayas is nearly 3,000 feet higher than on the south side. The country is well adapted for pasturage, and large flocks of the yak, sheep, deer, and Kashmir goat are reared. Part of the west is subject to Kashmir.

Thibet is the chief seat of Buddhism, and the Grand Lama, or Dalai Lama, supposed to be an incarnation of Buddha, lives at *Lassa* in great splendor. The Government is in the hands of the Chinese, and the Viceroy also lives at Lassa, which is the capital.

Mongolia, having an area of 1,288,000 square miles and a population of about 2,000,000, extends from the Khingan Mountains, which separate it from Manchuria, to Dzungaria; and from the Altai Mountains to Thibet. The country is a high table-land, bordered by mountains, and a great part of it is covered by the desert of Gobi. The people are pastoral, possessing numerous herds of horses, oxen, and camels. They are chiefly Mongols, descendants of the fierce warriors who, under Zenghis Khan, overran and conquered a great part of Asia. The trade is principally with China.

Urga (60,000), south of Lake Baikal, is the capital, and the residence of the Lama of the Mongols. South-west of Urga are the ruins of Karakorum, the former capital of Zenghis Khan.

Manchuria lies between the Khingan Mountains and Corea. Its area is 362,310 square miles, with a population estimated at 7,500,000. The surface is mountainous, and covered with forests. The *Amur* flows through it. The climate is cold, and wheat will scarcely grow. Oats and millet are the chief produce. The Manchus conquered China in 1616–44, and still hold the imperial crown.

Moukden is the chief town, and the former capital of the Manchu dynasty. The present capital is *Kirin-Oula* or *Girin*, on the Sungari.

Chinese Turkestan, or Kashgaria, lies between the Kuen-Luen and Thian Shan Mountains. Its area is 431,800 square miles, and its population about 580,000. The whole of the country forms part of the immense table-lands of Asia, and in the east is the vast desert of Gobi or Shamo, extending into Mongolia. The country is cold, owing to its elevation, and is adapted only for pasturage. The inhabitants are Tatars. They were formerly subject to China, but became independent in 1864. In 1877–78 they were reconquered by China, and nearly exterminated.

Yarkand (150,000), the commercial centre, is situated in a fertile plain, and is the chief emporium of the caravan trade between China and Western Asia. *Kashgar*, in the north-west, is the capital.

Dzungaria lies to the north of the Thian Shan Mountains. It is mountainous in surface, and is peopled by the Mongol Tatars. *Ili*, or *Kuldja*, does a considerable trade with Russia.

COREA.

Area, 82,000 square miles; population, 10,500,000.

Corea is a peninsula lying to the south-east of Manchuria. It was formerly tributary to China, but is now an independent kingdom. The country is mountainous and the climate extreme, being hot in summer and cold in winter. The people are Mongols, and resemble the Chinese both in appearance and in language. Buddhism is the principal religion. The king is absolute, both in politics and in religion. The chief products are rice and other grains, hemp, cotton, tobacco, and the medicinal plant, ginseng. Economic minerals are abundant. The capital, *Seoul*, has a population of 250,000. Neither temples nor priests are permitted within the city. Foreigners were jealously excluded from the country until within the last few years.

RUSSIA IN ASIA.

Area, 6,564,778 square miles, about twice the size of the Dominion of Canada; population, 17,600,000, about three persons to the square mile.

Russia in Asia is bounded on the north by the Arctic Ocean; on the west by the Ural Mountains and Ural River; on the south by Turkey, Persia, Afghanistan, and the Chinese Empire; and on the east by the Pacific Ocean.

It is divided into Siberia, Transcaucasia south of the Caucasus Mountains, the Trans-Caspian district, lying on the east of the Caspian Sea, and Central Asia or Russian Turkestan, lying east of the Sea of Aral, between Siberia and Afghanistan. Owing to the severity of the climate, by far the larger portion is but thinly peopled.

The north of Siberia consists of vast, frozen, treeless steppes, or tundras, but in the south it is mountainous, and covered with forests. The slope of the country is northwards. In the south are the *Caucasus Mountains*, between the Black and Caspian Seas; and the *Altai Mountains*,

extending from Turkestan in a north-easterly direction, and continued to the Pacific under the names of the *Yablonoi* and *Stanovoi Mountains*. The rivers are large, but slow, owing to the level nature of the country, and all flow north into the Arctic Ocean. They are unfit for navigation, as in the lower part of their courses they are generally covered with ice. The principal are the *Obi*, *Yenisei*, and *Lena*. The principal lakes are: *Aral*, *Balkash*, and *Baikal*, all in the south. The peninsula of *Kamschatka* extends from the north-east into the Pacific, and encloses the *Sea of Okhotsk*. In the Arctic Ocean are the *Liakhov Islands*, which are uninhabited, but contain remarkable fossil remains of elephants. The island of *Saghalien* belongs also to Russia.

The **climate** is intensely cold, becoming more so towards the east. East of the Lena is the coldest inhabited region in the world, being more so than any part of the American continent.

The country derives its importance from its valuable mines of gold, silver, platinum, copper, and iron, which are found in the Ural and Altai Mountains, and from its trade in furs. The mines are under Government control, and are worked by political exiles and criminals. Fur-bearing animals abound—such as the ermine, sable, beaver, marten, and others, Bears, wolves, wild boars, and the argali, or wild sheep, are numerous. The inhabitants are chiefly of the Tatar origin in the south, and Samoieds, resembling the Eskimos, in the north; the Kirghis tribes roam over the country north of the Sea of Aral; the people of Kamschatka are of short stature, and use the dog for drawing their sledges. The towns are principally inhabited by European Russians, who carry on the trade of the country. Political and other criminals are banished from Russia in Europe to Siberia. Siberia is divided into Western and Eastern.

In Western Siberia, *Taskent* or *Tashkend* (121,400) is the chief town and centre of commerce of the province of Turkestan. *Samarkand*, the capital, has a population of 33,000. *Tobolsk* (20,200) is situated at the junction of the Tobol and Irtish, tributaries of the Obi. *Kokand* (54,000), south-east of *Taskent*, is an important city. *Omsk* (38,000) and *Tomsk* (36,742) are capitals of provinces of the same names, and are considerable towns. *Ekaterinburg* has valuable mines.

In Eastern Siberia, *Irkutsk* (48,000), on Lake Baikal, is the capital, and *Kiakta* the chief station on the route between Russia and China. *Nertchinsk*, on the Amur, has valuable mines. *Yakutsk*, on the Lena, and *Okhotsk*, on the river of the same name, are considerable towns. *Petropaulovski* is a port in Kamschatka, and *Vladivostok* is an important fortified naval station on the Sea of Japan.

The Trans-Caucasian provinces consist of the districts lying to the south of the Caucasus Mountains, between the Black and Caspian Seas. The Circassians inhabit the Caucasus Mountains, and were continually at war with Russia for their liberty, until they were finally conquered in 1864. They are generally Mohammedans, while the Georgians belong to the Greek Church.

South of the Caucasus are *Tiflis* (104,000), the capital, on the Kur; *Erivan*, on a branch of the Aras; *Baku* (46,000), in the centre of a rich petroleum district, on the Caspian Sea; *Batoum*, an important fortified port on the Black Sea; and *Kars*, a famous stronghold taken from the Turks in the war of 1877–78.

BOKHARA AND KHIVA.

Area, 114,320 square miles, four times larger than New Brunswick; population, about 3,280,000; persons to square mile, 28.

Bokhara and **Khiva** are the two most southerly dependencies of Russia in Asia. The Oxus, as far west as longitude 66°, and thence a line running to Persia near the 37th parallel of north latitude, about forty miles south of Merv, form the southern boundary, separating them from Afghanistan. The greater part of the country consists of sandy steppes or plains, except in the east, which is very elevated. The rivers *Sir* and *Amu* or *Oxus* flow westward into the Sea of Aral, a salt lake about the size of Lake Superior, but very shallow, and decreasing in area.

The extremes of heat and cold are great, and the only fertile parts of the country are those along the courses of the rivers. The most fertile districts in Bokhara and Khiva are on the Amu, where rice, silk, and cotton are produced; and Merv in the Turkoman country.

These provinces form part of ancient Scythia. In the north, round Lake Aral, the inhabitants are of the Kirghis tribe, and are nomadic in their habits. The dominant people are the Usbegs, an active and intelligent race; and the religion is Mohammedan. The trade is chiefly carried on by caravans with Russia, China, and Persia.

Bokhara (100,000), the capital, is the centre of the caravan trade, and manufactures cottons and silks. *Khiva* is a place of three or four thousand mud-built houses. *Merv* is an ancient town in an oasis formed by the River Murghab.

JAPAN.

Area, 147,655 square miles; population, 40,072,000; persons to square mile, 271.39.

The **Empire of Japan** consists of the *Islands of Hokkaidô* or *Yezo* (or Jesso), *Honshiu* or *Niphon*, *Shikoku* (also written Sikok and Sikopf), and *Kiushiu*, with numerous small islands, dependencies of the larger ones. The *Kurile*, *Loo-choo*, or *Liukiu*, *Sado*, *Awaji*, *Oki*, *Tsushima*, and *Bonin* Islands belong also to Japan.

The Japan Islands are separated from Corea and Manchuria by *Corea Strait*, and the *Sea of Japan*. The main islands are traversed by lofty mountains, rising to the height of 12,000 feet, and covered with perpetual snow. Some of them are volcanoes.

Yesso and the northern islands are cold, and not very productive; but in the southern islands the land is very carefully cultivated, and produces rice, tea, cotton, and silk. As in China, the country is densely peopled; and even every

Japanese Town.

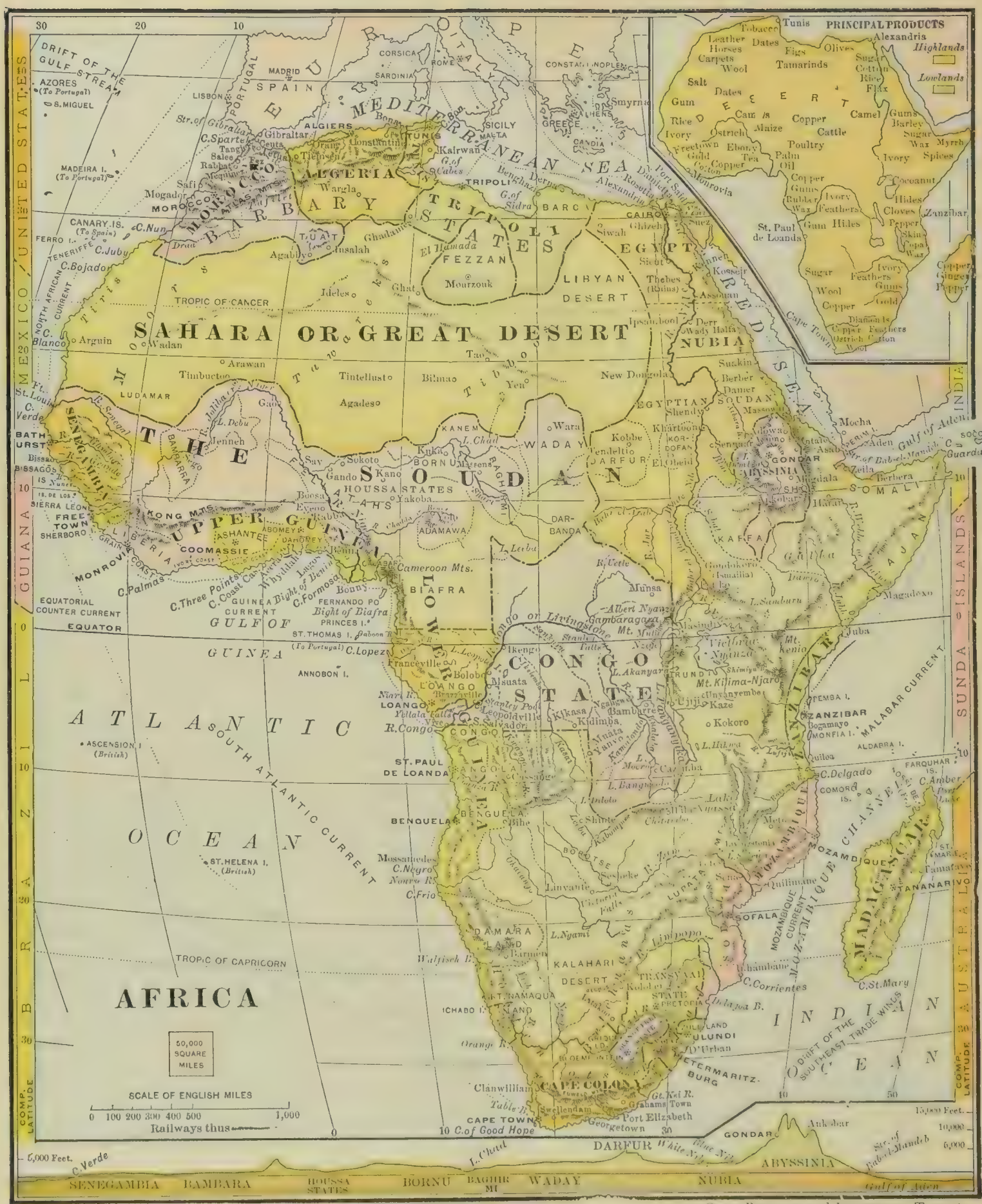
mountain is cultivated as far as possible, in order to supply the wants of the large population. The Japanese are famous for their japanned and lacquered wares; porcelain and silk are also extensively manufactured. Gold, silver, copper, and tin are found in considerable quantities.

Like the Chinese, the Japanese are highly civilized, and have made great progress in manufactures and science. They were very exclusive, and up to 1854 only a few Chinese and two Dutch vessels were allowed annually to trade at Nagasaki. Since then, the Americans in 1854, and the British in 1858, concluded treaties with them, by which several other ports were opened for foreign trade. Within the last few years, no country in the world has made such rapid progress as Japan. Railways and steamships have been built, education has been greatly encouraged, and European institutions generally adopted.

The **government** was a despotism, and consisted formerly of two sovereigns—a spiritual emperor, called the Dairi, or Mikado, who was looked upon as semi-divine, was invisible to the people, and who resided at Miako; and the executive chief, or Sho-goon, called by the Chinese the Tycoon, who resided at Yedo, both in the island of Niphon. The nobles, or Daimios, were very powerful, and almost independent princes. In 1868, after six months' war, this divided sovereignty was terminated, and the Mikado now reigns supreme. In 1889 a constitution was promulgated, and the government is now a limited monarchy. By the new constitution, absolute freedom of religious belief is secured. The chief forms of religion are Shintoism and Buddhism. Elementary education is compulsory. There are now 27,000 elementary schools (including 200 kindergarten), upwards of 2,000 high schools and colleges, and three universities.

Tokio, formerly called *Yedo* (1,389,684), is the largest town and the capital. *Kioto* or *Miako* (279,792), the sacred capital, where dwells the Mikado, is the principal manufacturing and commercial town in Hondo. *Matsmai* is the chief town of Yezo. *Yokohama* (122,000), *Simoda*, and *Kanazawa* (94,300), in Hondo, *Nagasaki* in Kiushiu, and *Hakodadi* in Yezo, *Osaka* (476,270), *Kobe* (135,600), and *Niigata* (46,000) are the principal ports now open to foreigners. *Kumamoto* (53,000), *Kago-shima* (257,500), *Nagoya* (163,000), and *Sendai* (90,300) are important cities.

Fusi Yama, the Sacred Mountain of Japan.



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SCENES IN AFRICA.

AFRICA.

Length from north to south, 5,000 miles; from east to west, 4,600 miles. Area, 11,514,500 square miles; population, 130,185,000; persons to square mile, 11.

Africa is a vast compact peninsula of a triangular form, almost entirely surrounded by water, and connected with Asia only by the Isthmus of Suez.

It is bounded on the north by the Mediterranean Sea; on the west by the Atlantic Ocean; on the south by the southern Ocean; and on the east by the Indian Ocean and the Red Sea.

It may be divided geographically into:

North Africa, or the Barbary States, comprising Morocco, Algeria, Tunis, Tripoli, and Barca; the *Nile Region*, comprising Egypt, Nubia, and Abyssinia; the *Sahara* and *Soudan; Equatorial Africa*, or the Great Central Lake region; *West Africa; South Africa*, including Cape Colony, Natal, etc.; and *East Africa*, from South Africa to Cape Guardafui.

Less is known of Africa than of any other of the great divisions of the earth; but as many enterprising travellers, such as Livingstone, Barth, Burton, Grant, Speke, Baker, Stanley, Cameron, and others, have lately made it the subject of their explorations, our knowledge of the country is rapidly extending.

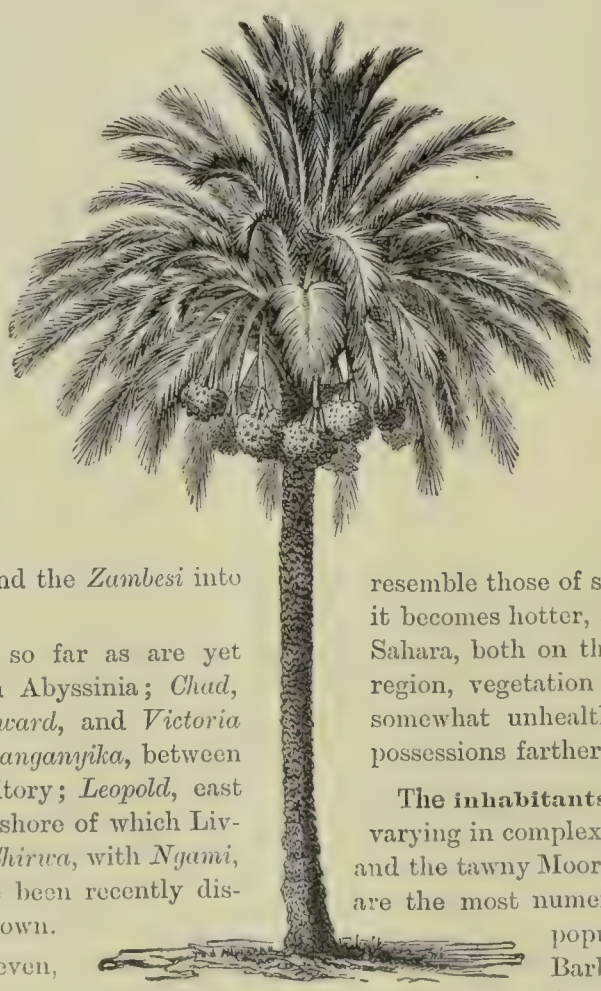
The **mountains** of Africa generally occur, so far as is known, in detached ranges but a short distance from the sea-coast; they also extend inland, and partly enclose a vast elevated plain in the interior, much of which, especially in the northern parts, is desert, and unfit for cultivation or habitation, while the equatorial region is well watered and fertile.

The *Atlas Mountains*, in the Barbary States, extend eastward from the Atlantic parallel to the Mediterranean Sea, rising to their greatest height, over 11,000 feet, in Morocco; and smaller ranges extend from them nearly to the borders of Egypt, but do not rise higher than 3,000 feet. The mountains of *Abyssinia*, in the east, rise in irregular groups from a high table-land, some of them reaching nearly 16,000 feet in height. They are more abrupt to the south than to the north. Parallel to the Gulf of Guinea, and about 150 miles inland, rise the *Kong Mountains*, and farther south, on the shores of the Bight of Biafra, are the *Cameroons*, reaching 13,760 feet. The *Nieuveld Mountains* and some other smaller chains extend from east to west across the central part of Cape Colony, rising in Compass Berg 10,000 feet. On the east coast of Africa are several chains of mountains, some of which rise to a great height, but are yet

little known. *Mounts Kilma Njaro* (20,065 feet) and *Kenia* (18,000 feet) are a little south of the equator. Owing to the general proximity of the mountains to the coast, the rivers are not so numerous, nor, with few exceptions, so important as in the other great continents. The principal is the *Nile*, which has two sources—the Blue Nile, rising in Abyssinia, and the White Nile, the sources of which are connected with the Nyanza lakes, close to, and on each side of the equator. The river is at least 4,000 miles long, and receives several tributaries, but none lower than 1,200 miles from its mouth. Next in importance is the *Congo*, an immense river, 3,500 miles long, rising in British Central Africa, about 12° south latitude, and flowing, after a very circuitous course, into the South Atlantic. (It is second only to the Amazon in the volume of its waters). The *Niger*, or Quorra, rises on the north side of the Kong Mountains, receives a large tributary, the *Benue*, and flows round the eastern end of that range into the Gulf of Guinea. The *Senegal* flows into the North Atlantic Ocean; the *Orange*, or *Gariep*, into the South Atlantic; and the *Zambesi* into the Mozambique Channel.

The principal **lakes** of Africa, so far as are yet known, are: *Dembea*, or *Tand*, in Abyssinia; *Chad*, in the interior; *Albert*, *Albert Edward*, and *Victoria Nyanzas*, under the equator; and *Tanganyika*, between the Congo State and German territory; *Leopold*, east of Tanganyika; *Bangweolo*, on the shore of which Livingstone died; *Moero*, *Nyassa*, and *Shirwa*, with *Ngami*, farther south. Most of these have been recently discovered, and are but imperfectly known.

The **coast-line** of Africa is very even, with but few indentations.



The Date-palm.

The principal Bays and Gulfs are:

On the north, the *Gulfs of Sidra* and *Cabes*.

On the west, the *Gulf of Guinea*, including the *Bights of Benin and Biafra*.

On the south, *Table Bay* and *Algoa Bay*.

On the east, *Sofala Bay*, *Gulf of Aden*, and the *Red Sea*.

The principal Straits are:

Gibraltar, between Morocco and Spain; *Mozambique Channel*, between Madagascar and the mainland; *Strait of Babelmandeb*, between Eritrea and Arabia.

The principal Capes are:

On the north, *Bon*, *Blanco*, *Ceuta*.

On the west, *Blanco*, *Verde*, *Palmas*, *Lopez*, and *Frio*.

On the south, *Good Hope* and *Agulhas*.

On the east, *Corrientes*, *Delgado*, and *Guardafui*; and *Capes Amber* and *St. Mary*, the north and south points of Madagascar.

The **climate** of Africa is in general hot and dry, more than three-fourths of the continent being within the tropics. Towards the middle and south the seasons are alternately dry and wet, as in other tropical countries; but in the vast sandy deserts no rain ever falls. The Sahara extends from the Atlantic Ocean to Egypt, and occupies an area of 1,600,000 square miles. It is not, as commonly supposed, wholly a sandy desert, but a vast plain, having a mean elevation of about 1,500 feet, and diversified with mountain chains as high as from 6,500 to 8,200 feet, whose tops are covered with snow and ice for several months in the year. The desert portions do not occupy more than one-tenth of its entire area. Its total population is estimated at little more than a million; and there are several towns of from 2,000 to 5,000 people.

Along the shore of the Mediterranean the climate and productions resemble those of southern Europe; but in the interior it becomes hotter, and the products vary. South of the Sahara, both on the coast and in the great central lake region, vegetation is rank, and the climate in general somewhat unhealthy for Europeans. The European possessions farther south are cooler and more healthy.

The inhabitants of Africa consist of different races, varying in complexion, from the light-skinned Egyptian and the tawny Moor to the blackest Negro. The Negroes are the most numerous, constituting almost the entire population south of the Sahara. In the Barbary States the Moors belong to the Caucasian race, while the Egyptians in the Nile region are, by some ethnologists, thought to be akin to the natives of Australia, and the Dravidian races of southern India. In the south are also the Hottentots, a stunted, degraded race.

The **trade and products** of the continent are rapidly increasing. The Barbary States export grain and leather; Egypt exports cotton and grain; and the west and south yield palm oil, ivory, and a little gold dust. *Kimberley*, in Cape Colony, is one of the richest diamond fields in the world. On the south-west and east coasts the inhuman trade in slaves is still carried on to some extent, notwithstanding the vigilant efforts of the British to put it down.

During recent years the greater portion of the continent south of 10° north latitude has been portioned among the British, French, Germans, Italians, Belgians, and Portuguese, in addition to what some of these formerly possessed.

POLITICAL PARTITION OF AFRICA.

The following table presents a summary of what may be called "The Political Partition of Africa," at this date, 1892.

DIVISIONS.	AREA.	POPULATION.	PERSONS TO SQUARE MILE.
British—			
Gambia	2,700	50,000	19
Sierra Leone	15,000	300,000	20
Gold Coast	46,000	1,905,000	41
Lagos and Yoruba	21,000	3,000,000	142
Niger Provinces	269,500	17,500,000	65
Total British Guinea	354,000	23,755,000	67
Cape Colony, with Pondo Land, etc.	225,000	1,700,000	8
Basutoland	11,750	180,000	16
Natal	21,150	540,000	25
Zulu and Tonga Lands	10,560	170,000	16
British Bechuanaland	71,420	46,000	0.6
Bechuanaland Protectorate	99,000	150,000	1.5
Zambesia, Nyassaland, etc.	520,000	950,000	1.8
Total British South Africa	959,480	3,736,000	4
Zanzibar and Pemba	985	165,000	167
Ibea* to 6° N. lat.	468,000	6,500,000	14
Rest to Egyptian frontier	745,000	6,000,000	8
Northern Somal Coast	40,000	200,000	5
Socotra	1,382	10,000	8
Total British East Africa	1,255,367	12,875,000	10
Mauritius, etc.	1,053	10,000	8
St. Helena, Ascension, and Tristan da Cunha	126	5,000	45
Total British Africa	2,570,926	40,764,100	16
French—			
Tunis	44,800	1,500,000	33
Algeria	260,000	3,870,000	15
Sahara	1,550,000	1,100,000	0.7
Senegal	51,000	250,000	5
Gold and Benin Coasts	7,500	250,000	33
Soudan and Guinea (remainder)	531,500	10,500,000	20
French Congo and Gaboon	220,000	2,500,000	11
Obok (Tajura Bay)	7,700	70,000	9
Madagascar, etc.	228,600	3,520,000	16
Comoros	760	63,000	84
Réunion	764	165,000	215†
Total French Africa	2,902,624	23,788,000	8
Portuguese—			
Portuguese Guinea	11,600	150,000	13
Angola	517,200	3,500,000	7
Mozambique	310,000	1,500,000	5
Madeira	318	134,000	421
Cape Verde Isles	1,490	111,000	75
St. Thomé and Principé	417	21,000	50
Total Portuguese Africa	841,025	5,416,000	6
Spanish—			
Tetuan, etc. (Morocco)	27	16,000	592
Sahara	200,000	100,000	0.5
Canaries	2,940	288,000	98
Fernando Po, Annobam, Corisco, C. St. Juan	800	33,000	41
Total Spanish Africa	203,767	437,000	2
German—			
Togoland (Slave Coast)	16,000	650,000	40
Cameroons	130,000	2,600,000	20
South-West Africa	322,000	200,000	0.6
East Africa (with Mafia)	354,000	2,500,000	7
Total German Africa	822,000	5,950,000	7
Italian—			
Eritrea	52,000	300,000	6
Abyssinia	195,000	4,500,000	23
Somal (part), Galla, etc.	355,300	1,500,000	4
Total Italian Africa	602,000	6,300,000	10
Belgian—			
Congo State	865,400	15,600,000	18
Turkish—			
Egypt and Tripoli	836,000	7,980,000	10
Liberia	37,000	1,000,000	27
Boer Republics	162,640	888,000	5
Swazi Land	6,370	61,000	10
Unappropriated	1,584,398	22,000,000	14
Great Lakes	80,350		
Total Africa	11,514,000	130,185,000	11

* From the initials of the words Imperial British East Africa, the name of a company to which the territory was ceded in 1888.

† Dahomey, capital *Abomey*, was added to the French possessions late in 1892. It is estimated to contain 4,000 square miles, with a population of about 250,000.

☞ These figures are in most cases only rough estimates, and are given merely for purposes of comparison. Although, in what follows, the countries will be treated in accordance with the plan of former editions, the above grouping will enable pupils to understand the present political condition of Africa.

1. Camel.
2. Horned Viper.
3. Ibis.
4. Flamingo.
5. Crocodile.
6. Gorilla.
7. Lion.
8. Elephant.
9. Hippopotamus.
10. Rhinoceros.
11. Puff Adder.
12. Ostrich.
13. Gnu.
14. Zebra.
15. Giraffe.
16. Koodoo.
17. Striped Hyena.

To the Teacher.—The single-humped Camel is used throughout all northern Africa as a beast of burden and travel. All traffic is carried on by his aid; without him commerce would be impossible.—The Horned Viper is found in northern Africa, the Puff Adder in the deserts of south Africa; both are exceedingly venomous. The Puff Adder is of considerable size, and, when irritated, swells out the upper part of its body.—The Flamingo is found in salt, marshy, tropical districts, and sometimes visits Europe. It is a bird of the goose kind, and noted for its beautiful plumage, its body being of a rich rose-color, and its wings of a dark purple.—The Ibis is found principally in the Nile valley. It was held sacred and worshipped by the ancient Egyptians, and was the object of numerous extraordinary beliefs—as, for example, that its flesh was incorruptible after death.—The Crocodile is found in nearly all African rivers, especially the upper Nile and the Limpopo. It attains a great length, sometimes as much as thirty feet; and it frequently seizes human beings as prey. It also was held sacred by the ancient Egyptians.—The Gorilla is the largest and strongest of the apes, being about six feet in height, and able with its teeth to crack nuts which would otherwise require a heavy blow from a hammer.—The Ostrich is found in almost every part of the continent, but especially in the deserts and in the open plains. It is very vigilant and fleet, and its capture can be effected only with great difficulty. The artificial breeding of the ostrich is now a successful and important industry in Cape Colony.—The Koodoo is one of the largest of the antelope species. It lives in small families of four or five. Its principal beauty lies in its horns, which are about four feet long, and are gracefully twisted in a wide spiral. The koodoo may be easily domesticated.—The Striped Hyena is peculiar to south western Asia and northern Africa; the Spotted Hyena is peculiar to southern Africa. The Jackal, a distant relative of the hyena, but a smaller animal, is common throughout all Africa. Both the hyena and the jackal are useful as scavengers, being fond of carrion; and both can be perfectly domesticated.

MOROCCO.

Area, 219,000 square miles, about the size of Ontario; population, about 5,000,000.

The **Empire of Morocco** occupies the north-western corner of Africa, between the Sahara, the Atlantic Ocean, Mediterranean Sea, and Algeria. It is the most important of the Barbary States in power and population. These States were celebrated in ancient history under the name of Mauritania, but have now been long sunk under tyranny and oppression. Their power has declined, and their naval force, long used for piratical purposes, has been destroyed by the British and other European powers since the beginning of the present century.

The **Atlas Mountains** traverse the country in a direction nearly parallel to the coast. They attain their greatest height in Morocco, and several of their peaks are covered with snow. *Mount Miltsin*, near the city of Morocco, is 11,400 feet high. In the mountains are many beautiful and fertile valleys, and between them and the coast grain grows abundantly, as well as olives, grapes, dates, cotton, and tobacco. Beyond the mountains all the country is barren and desolate, covered for some distance with coarse grass, which gradually disappears in the sand. The ridges of the Atlas Mountains yield silver, copper, iron, and antimony.

The **climate** is in general warm, but healthy, resembling the south of Europe.

The **people** are chiefly Moors and Berbers, professing Mohammedanism. Jews are numerous in the seaports.

The **government** is an absolute monarchy, the Sultan having unlimited power over his subjects so far as it extends, but the larger part of the country is virtually ruled by independent Berber mountain chiefs.

Spain possesses four ports on the north coast, the principal of which is *Ceuta*, opposite Gibraltar.

Morocco (60,000), situated in a fertile plain, was formerly the capital; *Mequinez* (50,000) is an imperial residence; *Fez* (80,000), the present capital, celebrated under the ancient Saracén monarchy, is a holy city, and contains 100 mosques. *Mogador* and *Tangier* are small seaports; *Tafilet* is situated in a fertile district in the interior.

ALGERIA.

Area, 260,000 square miles, nearly seven times the size of New Brunswick; population, about 3,870,000; persons to square mile, 15.

Algeria lies to the east of Morocco, along the shore of the Mediterranean Sea. It has been in the possession of the French since 1830, but requires a large army to keep it in subjection. The total European population is about 500,000, fully one-half being French; and great efforts have been made within the last few years to colonize it more extensively.

It is divided by the French into three provinces: *Algiers*, *Constantine*, and *Oran*.

It is traversed by the continuation of the Atlas Mountains, the northern slope of which is very fertile. Between them and the coast is a narrow strip of rich land called the "Tell," or grain country, where large quantities of wheat are grown for export. In the south, it resembles Morocco in soil and climate, and the chief occupation of the inhabitants is pasturage. Esparto grass is largely exported for paper-making.

Algiers (75,000), on the Mediterranean, the capital, is strongly fortified, and was long a formidable nest of pirates. It was bombarded and taken by the British under Lord Exmouth in 1816. *Constantine* (45,000), *Oran* (68,000), and *Bona* (30,000) are also considerable towns.

TUNIS.

Area, 44,800 square miles, a little larger than Newfoundland; population, about 1,500,000; persons to square mile, 33.

Tunis is situated to the east of Algeria. It was formerly governed by an hereditary Bey, and was tributary to Turkey; but in 1881–82 it was annexed to France. It is one of the most important of the Barbary States, and in ancient times was one of the granaries of the Roman Empire. In climate, soil, and productions it resembles Algeria. Caravans from the interior visit it regularly with ivory, gold dust, etc.

Tunis (125,000) is an important commercial city on the Lake of Tunis, which is connected with the Mediterranean. Thirty thousand of the inhabitants are Jews. About 10 miles to the north-east are the ruins of ancient *Carthage*, the once formidable rival of Rome. *Goletta* (the port of Tunis) is distant 7 miles, and a canal will soon connect the two towns. *Kairwan*, about 70 miles south of Tunis, the centre of the inland trade, is the holy city of Tunis.

TRIPOLI.

Area, 400,000 square miles, less than twice the size of Quebec; population, about 1,300,000.

Tripoli lies to the south-east of Tunis, along the shore of the Mediterranean, between the Gulfs of Sidra and Cabes. **Barca** lies between it and Egypt, and **Fezzan** between it and the Sahara. The three together constitute the vilayet of Tripoli, a province of the Ottoman Empire.

Tripoli (about 30,000), the capital, is regularly visited by the caravans from the interior, There are two great routes —one by *Ghadamis*, 200 miles to the south-west; and the other by *Mourzook*, 500 miles to the south. *Bengazi* (22,000) is the second town in importance.

EGYPT AND THE NILE REGION.

Area (including all the territory), 400,000 square miles; of settled districts, 13,000 square miles; population, upwards of 7,000,000.

The **Nile Region** comprises Egypt, Nubia, Kordofan, Darfur, Abyssinia, and a number of petty States round the sources and along the upper part of the White Nile.

It is over 2,000 miles in length, with a varying breadth of from 150 to 600 miles. The *Nile Proper* is formed in Nubia, by the junction of the *White* and *Blue Niles*. It is of the greatest importance to the country, as its annual inundations, caused by the tropical rains at its sources, render the surrounding land luxuriantly fertile. On account of the great drought in Lower Egypt, these inundations are looked forward to by the inhabitants with much anxiety, as defect or excess is alike disastrous. Above the southern frontier of Egypt, the high banks of the river prevent its overflowing. As it does not receive a single affluent in the last 1,200 miles of its course, its volume gradually decreases from evaporation and the quantity of water drawn off for irrigation.

The Sphinx and Pyramids.

Egypt Proper is bounded on the north by the Mediterranean Sea, on the west by Barca and the Sahara, on the south by Nubia, on the east by the Red Sea and Isthmus of Suez.

The great feature of Egypt is the Nile. Its course is through a long, narrow valley enclosed by hills on each side, beyond which are sandy deserts. About 100 miles from the Mediterranean, it divides into two branches, forming a delta or triangle, each side of which is from 100 to 150 miles in length.

The **climate** is the driest in the world, rain seldom falling, and in summer the heat is excessive. The soil is very fertile where it is overflowed by the Nile, producing wheat, rice, cotton, barley, and sugar-cane in great abundance. Great efforts have lately been made by the Khedive to improve agriculture and manufactures, but hitherto without much success.

The country is governed by an hereditary Pacha or Khedive, nominally tributary to Turkey, but really under the protectorate and financial supervision of Great Britain. The inhabitants are composed of native Egyptians (called Copts), Turks, Arabs, and an increasing number of Europeans. The prevailing religion is the Mohammedan.

The Isthmus of Suez, connecting Egypt with Asia, is on the great overland route between Britain and India. It is a sandy tract 87 miles wide, with several depressions, forming shallow lakes of brackish water. French engineers have succeeded in constructing a canal to connect the two seas. This canal is now chiefly owned and controlled by British capital. A railway extends from Alexandria to Cairo, 131 miles, and from Cairo to Ismailia, on the Suez Canal, 91 miles.

During recent years, or since the beginning of the British protectorate, the railway system has been wonderfully developed. There are now nearly 1,250 miles of railway completed, and upwards of 3,000 miles of telegraphic communication, with about 5,500 miles of wire. Submarine

cables connect the system of Egypt with those of Britain and India.

Egypt is one of the most interesting countries in the world, from its connection with sacred history, and from its early civilization. Its pyramids, temples, and obelisks, with their hieroglyphics (which, owing to the extreme dryness of the climate, are admirably preserved), render it a favorite resort of travellers from all parts of the world.

Cairo (368,100), the capital, situated on the Nile, about five miles above the head of the Delta, is the largest city in Africa. It is poorly built, but its numerous and elegant mosques give it a fine appearance. Close to the city are the celebrated pyramids. *Alexandria* (208,755), on the coast, is an ancient city, originally founded by Alexander the Great, through which all the trade with Europe passes. Here Euclid taught, 320 years before the birth of Christ. Here, also, Abercromby fell in 1801; and at Aboukir, 15 miles to the east, Nelson gained the famous battle of the Nile, in 1798. Alexandria was bombarded by the British fleet in 1882 and its forts almost completely destroyed. *Rosetta* (17,000) and *Damietta* (34,000) are considerable towns to the east of Alexandria. *Port Said* (16,500) and *Suez* (11,000) are situated respectively at the northern and southern extremities of the canal. *Tantah* (34,000), *Mansourah* (27,000), and *Zagazig* (19,000) are the other chief towns. *Siout*, *Kenneh*, *Esneh*, and *Assouan*, in Upper Egypt, are principally trading stations for the caravans. South of Kenneh are the ruins of *Thebes*, the ancient capital of Egypt, and the temples of Karnac, Luxor, and Dendereh. In the oasis of *Siwah*, 320 miles west of Cairo, are the ruins of the temple of Jupiter Ammon.

Egyptian Soudan, comprising what was formerly known as Nubia (area, 950,000 square miles; population, 10,400,000), includes KORDOFAN, DARFUR, DONGOLA, KHARTOUM, SENNAAR, EQUATORIAL PROVINCE, FAZOCLI, BAHR-EL-GAZAL, ZEILAH, HARRAR, and BERBERA, and the country along the Nile as far south as Lake *Victoria Nyanza*. Kordofan was conquered by Egypt in 1821–22, the Nile countries in 1869–72, and Darfur in 1875. The principal towns are *El Obeid*, the capital of Kordofan; *Fasher*, the capital of Darfur; and *Lado*, the chief seat of the Egyptian government of the Upper Nile region.

The northern part resembles Egypt, being very dry, with only a narrow strip on each side of the Nile fit for cultivation. In the south, where the tropical rains fall, it is more fertile, and wild animals abound.

Khartoum (75,000), at the confluence of the two branches of the Nile, is the capital. *Sennaar*, the former capital, from which the caravan route lies westward through the desert to Darfur and the east of Lake Chad, was destroyed by the Egyptians. *Ipsambul* is noted for its temples, which are cut out of the solid rock. *El Ordeh*, or *New Dongola*, is a considerable town on the Nile. At *Suakin* Mohammedan pilgrims usually embark for Mecca.

ERITREA.

Area, 52,000 square miles; population, 300,000; persons to square mile, 6.

Eritrea is an Italian colony on the Red Sea, comprising the territory of which *Massowah* (16,000) and *Assab* (7,000) are the chief towns. The length of coast is about 670 miles.

Agriculture is in a primitive condition, and most of the people outside of the towns are nomadic, and subsist by pasturing oxen, sheep, and goats. Pearl-fishing is carried on at *Massowah*.

Railways, telegraphs, and the post-office system have been introduced.

SOMALI AND GALLA.

With the exception of a strip along the Gulf of Aden, under Britain, this country which extends as far south as the River Juba, is an Italian protectorate. It yields gold dust, spices, gums, hides, and ostrich feathers. Population, 210,000.

ABYSSINIA.

Area, 195,000 square miles; population, 4,500,000; persons to square mile, 23.

Abyssinia, including about twenty small kingdoms or principalities, wholly inland, lies west of Eritrea. This ancient empire is now an Italian protectorate according to the treaty of 1889, made between Menelik II. of Abyssinia, and Umberto I. King of Italy. It is a mountainous country, sloping towards the north. Like Nubia, in Egyptian Soudan, it is subject to tropical rains, but from its great elevation it possesses almost every variety of climate and products.

The *Blue Nile* rises in the mountains, and takes its name from the color of its mud. The most fertile part of the country is on the shores of *Tand* or *Dembea*, a large lake.

The people are an ignorant and savage race, professing a form of Christianity analogous to the Greek, but intermingled with many Jewish rites and pagan superstitions.

Abyssinia was brought into notice by the British expedition of 1867-68 for the release of a few British subjects imprisoned by King Theodore, at which time *Magdala*, Theodore's capital, was destroyed, the king himself slain,

and the kingdom broken up. *Antalo*, the old capital of Tigré, is half-way between Magdala and the coast.

None of the towns contain 10,000 inhabitants. *Gondar* (5,000) is the capital of Amhara, *Adowa* of Tigré, and *Ankobar* (situated 8,000 feet above the sea) of Shoa, is the largest city, with a population of 7,000.

Pasturage is the chief pursuit of the people, who rear large herds of cattle, sheep, and goats. Wild indigo, coffee, cotton, sugar-cane, the date-palm, and the vine flourish in many places, but are not cultivated. In the forests are many valuable trees. The exports, chiefly through Massowah in Eritrea, are hides, ivory, gums, and mules. Besides the large silver coin known as the Maria Theresa piece, salt and cloth are used as currency.

SOUDAN.

That part of the continent of Africa lying to the south of the Sahara, and north of the Gulf of Guinea, and extending eastward to the White Nile, is called Soudan. The term Soudan is very indefinite, as scarcely two authorities agree regarding what constitutes its area. It is composed of a number of independent States, but little is yet known of their extent or population.

The principal States known are: *Kaarta*, on the Upper Senegal; *Borgou* and *Gando*, on the Lower Niger; *Bambarra*, *Masina*, and *Soughay*, on the Upper Niger; *Hausa*, *Bornu*, and *Fumbina* or *Adamawa*, between the Niger and Lake Chad; and *Wadai*, *Kanem*, *Baghirmi*, *Darfur*, and *Kordofan*, between Lake Chad and Abyssinia. The last two named States belong to Egypt.

The **Niger** is the principal river of the country. It rises to the north of the Kong Mountains, and, after a circuitous course, falls into the Gulf of Guinea. It receives, on the east bank, the *Chadda*, a large river rising south of Lake Chad. *Lake Chad* is said by some to be nearly twice the size of Lake Erie. It is shallow, studded with islands, and receives several rivers. A number of towns of considerable size are situated on its shores.

The countries on the upper part of the *Niger* and on the *Senegal* have a luxuriant vegetation, and are densely peopled; wherever there is water the soil is fertile, and the people numerous. Most of this territory is now under the jurisdiction of the British and French.

The inhabitants are chiefly negroes. Trade with the Barbary States and countries of the Nile is carried on by caravans of camels, which are conducted across the Sahara by Arabs. The trade is chiefly in slaves, cotton, grain, indigo, ivory, and gold dust. *Timbuctoo* (20,000) is the most important town on the caravan route between Guinea, Senegal, Gambia, and Barbary. *Sokoto* (85,000), in Hausa, *Bida* (85,000), on the Niger, and *Sego*, in Bambarra, are great trading-places.

South of Egyptian Soudan and Abyssinia, under the equator, are high table-lands, or mountain ranges, containing a lake about as large as Lake Michigan, which has been called *Victoria Nyanza*, and another, the *Albert Nyanza*, in which lakes the White Nile takes its rise. South of this is another lake, *Tanganyika*, 420 miles long, and from 15 to 60 miles broad. Still farther south are *Lakes Bangweolo*, *Nyassa*, *Moero*, and *Shirwa*.

Bornu is the most populous Mohammedan state in Central Soudan. It occupies the western and southern shores of Lake Chad, and has an area estimated at 50,000 square miles, with a population of fully 5,000,000. The people are of mixed negro and other blood. Some of the tribes excel in the manufacture of woven fabrics, metal ware, and pottery.

Kukawa or *Kuka* (60,000) is the capital, and a great slave market. The currency of the country comprises old Austrian crowns, Spanish douros, and cowrie shells; the last being valued at 4,000 to the crown.

Wadai is the most powerful sultanate in Central Soudan. With its tributary states (the chief of which are Kanem and Bagirmi) it occupies all the region from the Sahara to the divide between the Chad and Congo basins, and from Darfur to Lake Chad; having an area of 172,000 square miles, and a population of 2,600,000.

FRENCH SAHARA AND SOUDAN.

With the exception of what is occupied by the British, Portuguese, and German colonies, and Liberia, France claims nearly all the remainder of West Africa, south of the Barbary States. It includes the upper Senegal, and countries on the Upper and Middle Niger, but the line dividing British from French territory has not been agreed upon. The chief town is *Kayes*. The occupation of these countries costs France nearly one million dollars annually.

SENEGAL.

This French colony, including protected states, has an area of upwards of 50,000 square miles and a population variously estimated from 250,000 to over a million. It extends along the river Senegal as far as Matam, and embraces all the Atlantic coast from north of Cape Verde to the Gambia on the south. It produces gum, ground-nuts, india-rubber, woods, and skins.

St. Louis (20,000) is the chief town, and *Dakar* is an important trading centre.

FRENCH GUINEA AND DEPENDENCIES.

The territory lying between Gambia on the north and Sierra Leone on the south now forms a separate French colony known as **Rivieres du Sud,** with *Conakry* as its capital.

The Gold Coast and Bight of Benin settlements are administered under Rivieres du Sud, and the country is officially known as French Guinea and Dependencies.

The products are similar to those of Senegal.

BRITISH WEST AFRICA.

The Gold Coast, stretching 350 miles along the Gulf of Guinea from 5° west longitude to 2° east longitude, has an estimated area of 46,600 square miles, and a population of 1,905,000.

Cape Coast Castle (25,000) and *Accra* (20,000) are the chief towns. Exports are palm-oil, india-rubber, and timber.

Lagos, including Yoruba, has an area of 21,000 square miles, and a population of 3,000,000. Lagos itself is an island lying off the Slave Coast. Its exports include palm-oil, gum-copal, india-rubber, ivory, and cotton.

Gambia, at the mouth of the Gambia River, has an area of 2,700 square miles, and a population of 50,000. Chief products are ground-nuts, hides, bees-wax, rice, cotton, and india-rubber. Capital, *Bathurst* (6,000), on the island of St. Mary.

Sierra Leone includes the island of Sherbro, and much adjoining territory. It extends northwards from Liberia 180 miles. Population, about 75,000. Exports as in Gambia.

Freetown (30,000), the capital, is the chief British military station in West Africa. The Gold Coast, Lagos, Gambia, and Sierra Leone are all crown colonies.

LIBERIA.

Liberia was originally founded by the United States for emancipated slaves. In 1847 it was formed into a republic with a constitution modelled on that of the United States.

Liberia has 500 miles of coast line, and extends inland about 200 miles. Its population, numbering upwards of 1,000,000, consists of 18,000 Americo-Liberians, the remainder being aboriginal negroes.

Monrovia (5,000) is the capital. The exports are coffee, palm-oil, palm-nuts, cocoa, sugar, arrow-root, hides, and ivory.

CAMEROONS.

Area, 130,000 square miles; population, 2,600,000.

This portion of what was formerly known as the Guinea Coast, lies immediately north-east and east of the Bight of Biafra. It became a German possession or protectorate in 1884. It has a coast-line of 120 miles, between Campo River and Rio del Rey. Its chief physical features are the mountains from which it takes its name. Vast quantities of cacao and tobacco are now grown. Other exports are ivory and palm-oil. Chief town, *Cameroons.*

TOGOLAND.

Togoland is a German settlement on the Slave Coast in Upper Guinea. Its estimated area is 16,000 square miles, and its population 650,000. It produces cocoa, palm-oil, india-rubber, and dye-woods.

Little Popo is regarded as the capital, but *Lome* is the chief port.

FRENCH CONGO AND GABOON.

Area, 220,000 square miles; population, variously estimated from 2,500,000 to nearly 7,000,000.

This territory occupies the tract on the right bank of the Congo, from Brazzaville, or Manyanga, to the mouth of the Mohangi River; and northwards to Cameroons. The country is covered with valuable forests. The chief exports are palm-oil, india-rubber, ivory, and ebony. Attempts have been made successfully to grow sugar-cane, cotton, vanilla, coffee, and tobacco.

In this and adjoining parts of Africa, the lion, leopard, elephant, hippopotamus, and various kinds of monkeys are abundant. In the interior, gorillas are numerous. Most of the birds are of brilliant plumage, and insect life is as gorgeous as it is prolific.

NIGER TERRITORIES.

Area, 500,000 square miles; population variously estimated from 20,000,000 to 35,000,000.

These territories extend from the Gulf of Guinea to the southern limit of the Sahara, and from the Niger on the west to Lake Chad on the east, the south-eastern boundary being conterminous with Cameroons.

The empire of *Sokoto* and several dependent kingdoms are subject to the Royal Niger Company (British) governing the territories. *Borgu* or *Bussang* is also attached to the company. The exports are gums, hides, india-rubber, ivory, palm-oil, vegetable butter, and many minor products.

Asaba is the capital, and *Lokoja* is the headquarters of the military forces.

Oil Rivers Protectorate (British) is an important region lying between Lagos and Cameroons. Its exports are similar to those of the Niger Territories, with the addition of ebony, camwood, barwood, indigo, and cacao.

Chief towns are *Duke Town, Creek Town, Bonny,* and *Brass.*

CONGO FREE STATE.

Area, 865,400 square miles; population, 15,600,000.

The State includes a small section on the north or right bank of the Congo, from its mouth to Manyangi, where it touches French territory. It extends to 40° north latitude and to 30° east longitude. Southwards it reaches Lake Bangweolo. It is bordered on the south by British Central Africa and the Portuguese possessions. It is a protectorate of Belgium.

The Congo River almost doubles on its course through this immense region, flowing in a northerly direction until it crosses the equator, then making a large sweep, it reaches the Atlantic in a south-westerly direction. It is navigable for 460 miles from its mouth to Vivi. Between this point and Stanley Pool (Leopoldville), a distance of 200 miles, navigation is obstructed by rapids, but beyond this is navigable water for about 1,000 miles, and many of its tributaries may be navigated for hundreds of miles.

Boma, on the lower river, is the capital.

SOUTH AFRICA.

South Africa comprises *Cape Colony* (including *Pondo Land* and *Walfisch Bay*), *Basuto Land*, *Natal*, *Zululand*, *Tongoland*, *Bechuanaland*, *Zambesia*, *Nyassaland*, *German South-west Africa*, and the *Transvaal* and *Orange Republics*.

In the south and east it is mountainous; in the north and west are vast plateaus, almost destitute of water. Three parallel ranges of mountains extend in a north-easterly direction, rising one above the other from the south upwards; the first being from 20 to 60 miles from the coast. The most northerly in Cape Colony is that of the *Nieuweld Mountains*, whose summits are generally covered with snow. Mount Compass rises to the height of over 10,250 feet. The *Lupata Mountains* extend north-easterly through Bechuanaland and Matabele to the Zambesi. The *Orange*, or *Gariep*, is the principal river, rising in the *Drakenberg Mountains*, west of Natal, and flowing through level country into the Atlantic, 450 miles from the Cape of Good Hope. The *Limpopo*, rising on the opposite side of the Drakenberg, flows north-easterly, and then south into Delagoa Bay.

BRITISH SOUTH AFRICA.

Area, 959,480 square miles; population, 3,736,000.

The **British Possessions** form the southern extremity of the African continent, and extend about 1,000 miles from east to west, and from 1,500 to 1,800 miles from north to south. It includes Cape Colony, with its dependencies; Basutoland, Natal, Zululand, Tongaland, British Bechuanaland, Bechuanaland Protectorate, Nyassaland, and Zambesia.

The country was originally colonized by the Dutch, but since 1806 has been in the possession of the British. About one-half of the population are Europeans or their descendants; consisting of British settlers and Dutch Boers, or farmers. The remainder are Hottentots, a most degraded race; and in the east, Kaffirs.

The climate is dry, and not unhealthy. European grains and fruits have been successfully introduced. Wine, wool, and hides are exported.

CAPE COLONY.

Cape Colony Proper comprises an area of 225,000 square miles, about the size of Quebec, and has a population of 1,700,000.

Cape Colony includes the Colony proper, East Griqualand, West Griqualand, Tembuland, Transkei, Walfish Bay, and Pondo Land.

It has a university and four colleges.

The chief exports are wool, ostrich feathers, hides, copper ore, angora hair, wine, grain, and diamonds.

Cape Town (51,000), on the south-west shore of Table Bay, is the chief city and seat of the colonial Parliament. Table Mountain, 3,580 feet high, rises south of the town, and is so called from its flat summit. Vines are extensively cultivated on its slopes. The other towns of importance are *Beaconsfield* (11,000), *Graham's Town* (10,500), 500 miles to the east of Cape Town, *Port Elizabeth* (23,000), and *Kimberly* (29,000), in the centre of diamond fields.

NATAL.

Area, 21,150 square miles; population, 540,000; persons to square mile, 25.

Natal, lying between Cape Colony and Zululand, has a coast line of 200 miles. Coal and iron are abundant. It produces wool, angora hair, hides, sugar, and maize. Tea-planting has recently been introduced.

The chief towns are *Pietermaritzburg* (17,500), the capital, and *Durban* (25,500).

GERMAN SOUTH AFRICA.

Area, upwards of 300,000 square miles; population, about 250,000.

The territory subject to Germany in South Africa extends from the Cunene River on the north to the Orange River on south, exclusive of Walfisch Bay, which is British, and attached to Cape Colony. Its inland limits are indefinite.

Copper, gold, and other minerals exist in the country, but have not been successfully worked.

There are no European or native settlements of any importance.

ORANGE FREE STATE AND TRANSVAAL REPUBLICS.

These countries, lying north of Cape Colony, are surrounded by British territory. The estimated area of the **Orange Free State** is 41,500 square miles, and the population amounts to nearly 80,000.

Farming and grazing are the chief occupations of the inhabitants, who are mainly of Dutch (Holland) origin.

Gold, diamonds, garnets, and other precious stones are found here.

Bloemenfontein (3,500) is the capital.

Transvaal, north of the Free State, is about four times its size, but scarcely exceeds it in population. The occupations of the people and the resources of the country are much like those of the sister republic. The people are also of Dutch origin.

Pretoria is the capital.

Between the Dutch republics and the Atlantic is the country of the Bechuanas, Namaquas, and Damaras, an inoffensive, pastoral people. The Zulus are a war-like tribe of Kaffirs whose territory lies north of Natal.

GERMAN EAST AFRICA.

Area, 354,000 square miles; population, 1,700,000 to 2,500,000.

The limits of German East Africa are somewhat undefined. It embraces a strip of the Zanzibar coast purchased from the natives, and at various points inland it touches Lakes Tanganyika, Victoria, Nyanza, and Nyassa.

The products are ivory, india-rubber, copal, gum, and coffee.

Dar-es-Salaam, *Bagamoyo*, and *Tanga* are ports of some importance.

BRITISH EAST AFRICA (IBEA).

Area, over 1,000,000 square miles; population, 12,500,000.

British East Africa occupies the northern portion of the Zanzibar coast. It is limited on the north-east by the river Juba, and meets German East Africa on the south. Inland it reaches Abyssinia and Egypt at the north, while to the west it extends to the watershed of the Nile, and touches Congo Free State. It includes Uganda, Usoga, Unyoro, and other native kingdoms, besides the great Equatorial Province formerly held by Emin Pasha, parts of Kordofan and Darfur, and a large part of Somaliland. It was first taken possession of and governed by a company known as the Imperial British East Africa Company, the initials of which title have given rise to the name *Ibea*.

Among the products are cloves, ivory, india-rubber, gum, copra, coir, orchella seed, and hides.

The chief ports are *Wonga*, *Mombassa*, *Malindi*, and *Lamu*. *Mombassa* is the capital.

Systems of railways and canals are in course of construction.

ISLANDS OF AFRICA.

MADAGASCAR.

Area, 228,500 square miles, rather larger than the Province of Quebec; population, 4,000,000.

Madagascar is the largest of the African islands, and is separated from the east coast of Africa by the Mozambique Channel.

Lofty mountains traverse it from north to south, approaching nearest to the eastern shore. The climate is hot, and the soil fertile, producing rice and sugar abundantly. Iron is found in the mountains. The government is despotic. Christianity, to which the natives were formerly hostile, has now become the established religion. *Tananarivo* (100,000), the capital, is situated on a lofty table-land, near the centre of the island. *Tamatave* (10,000), on the east coast, is the principal seaport. Madagascar is a French protectorate.

OTHER FRENCH ISLANDS.

Reunion, or **Bourbon** (165,000), rather larger than Mauritius, lies 90 miles south-west of it. It is of volcanic formation, and contains one active volcano in the south. It produces coffee and sugar largely. *Mount Piton des Neiges* is 10,000 feet high. France also possesses some small islands in the *Comoro* group, in the north of the Mozambique Channel, and some on the coast of Madagascar, which are dependencies of Réunion.

BRITISH ISLANDS.

Ascension, a small island in the Atlantic, is frequented by ships as a place of call on the voyage to the Cape. **St. Helena,** 850 miles south-east of Ascension, is famous as the place of exile of Napoleon Bonaparte, where he died in 1821. **Mauritius** (361,000), a considerable island, formerly called the Isle of France, is 480 miles to the east of Madagascar. Port Louis (60,300) is the capital and seaport. **Rodriguez,** east of Mauritius, the **Seychelles** and **Amirante Islands,** north-east of Madagascar, and the *Chagres* group, farther east, are dependencies of Mauritius, and are of little importance.

Socotra, in the Indian Ocean, about 120 miles east of Cape Guardafui, is a large island formerly belonging to the Sultan of Keshin in Arabia, producing the finest aloes.

AUSTRALASIA
ENGLISH MILES
0 50 100 200 300 400 500
Longitude East of Greenwich
BANDA SEA
FLORES SEA
ARAFURA SEA
TIMOR SEA
CORAL SEA
TASMAN SEA
PACIFIC OCEAN
INDIAN OCEAN
SOUTHERN OCEAN
NEW GUINEA or Papua
TORRES STR.
SOLOMON Is.
NEW HEBRIDES
NEW CALEDONIA
NORFOLK I.
NEW ZEALAND
NORTH I.
SOUTH I.
TASMANIA
NORTHERN TERRITORY
SOUTH AUSTRALIA
WESTERN AUSTRALIA
NEW SOUTH WALES
QUEENSLAND
VICTORIA
TASMANS PENINSULA
GULF OF CARPENTARIA
GREAT VICTORIA DESERT
GREAT SANDY DESERT
TIMOR
SUMBAWA
FLORES
SANDALWOOD
SERWATTY Is.
TIMOR LAUT
ARRU Is.
Dourga Str.
Aird R.
Fly R.
Mitre R.
C. Valsche
C. Wessel
Melville B.
C. Arnhem
Duythen Pt.
Blue mud B.
Groote Eylandt
Pellew Is.
Wellesley
Carmanton
Burketown
Daly Waters
L. Woods
Katherine R.
Victoria R.
Roper R.
Limmen Bight R.
Gregory R.
Albert R.
Barkly Tableland
Cloncurry R.
Leichhardt R.
Flinders R.
Mt. Isa
Mt. Hinchinbrook
C. Melville
C. Flattery
C. Bedford
Trinity B.
C. Grafton
Halifax B.
C. Cleveland
C. Upstart
Edgecumbe B.
Gov. Farquhar Is.
Barrier Reef
Cumberland Is.
Rejected B.
Northumberland Is.
Shoalwater B.
Port Bowen
Keppel B.
Swains Reef
Port Curtis Reef
Rockhampton
Gladstone
Wallaroo
Harvey B.
Sandy C.
Tropic of Capricorn
C. Pr of Wales
I. of Pines
Loyalty Is.
Lifu
Mare
Ouvea
Tana
Aneiteum
Erromango
Vate or Sandwich I.
Malicolo
Api
Ambrim
Mitsuntide
Bauroha
Banks Is.
Vanikoro or (Recherche)
Quiros or Torres Is.
Bligh I.
Espiritu Santo
Str. of Bougainville
Huon I.
Malaita
Ulakua
Guadalcanar or Gela
Isabel
New Georgia
Choiseul
St. Ortland
Bougainville I.
Trobriand I.
Entrecasteaux Is.
Morsby I.
Louisiade Archipelago
Deliverance
Rennell
Christoval or Lidia
Sta Cruz
Sta. Cruz Is.
Ontong Java or Lord Howe Is.
Three Kings
Cape North or Otou
Cape Maria Van Diemen
Hokianga
Kaipara Harb.
Auckland
Waikato R.
New Plymouth
Mt. Egmont
Cook Strait
Taranaki
Wanganui
Hawke B.
Wellington & Port Nicholson
Hokitika
Mt. Cook
Cascade Pt.
Christchurch & Port Lyttelton
Banks Peninsula
Waitangi R.
Dusky B.
Dunedin
Invercargill
Port Otago
Molyneux or Clutha R.
Stewart I.
Port Pegasus
Foveaux Str.
Bay of Plenty
Tauranga
Mercury B.
Port Sorell
Launceston
Oyster B.
Hobart
Port Davey
Storm B.
South C.
D'Entrecasteaux Chan.
Macquarie Harb.
Port Arthur
Tasman Pen.
Furneaux I.
Corner Inlet
Wilson Prom.
Melbourne
Geelong
Portland B.
Otway
Phillip
Port Phillip B.
Port Fairy
Portland
Glenelg R.
Encounter B.
Robertson
C. Northumberland
Kangaroo I.
Gulf of St. Vincent
Port Elliot
Adelaide
Port Wakefield
Port Augusta
Spencer Gulf
Port Lincoln
Eyre Pen.
Streaky B.
Head of the Australian Bight
Nuyts Archipelago
Investigator Is.
Whidbey Is.
Coffin B.
Anxious B.
Fowlers B.
Port Eyre
Port Lincoln
Port Cowan
Port Gregory
Geographe Chan.
Dirk Hartog I.
Shark B.
Steep Pt.
Perth
L. Brown
Fremantle
Swan R.
Darling Range
Mt. Milley
Mt. Margaret
Mt. Robinson
Mt. Barlee
Mt. Bartle
Mt. Charles
Mt. Gould
Mt. Whitby
Mt. O'Halloran
Mt. Olga
Mt. Daniel
Mt. Udor
Mt. Bruce
Mt. Russell
Mt. Leichhardt
Mt. Stuart
Mt. Macpherson
Alfred & Marie Ranges
Alice Springs
Finke R.
Todd R.
Macdonnell Ranges
Simpson Desert
Lake Eyre
Cooper
Thompson R.
Mt. Hopwood
Mt. Polux
Mt. Melville
Mt. Wedge
Mt. Lindsay
Mt. Barney
Mt. Warning
Brisbane
Ipswich
Toowoomba
Darling Downs
Condamine R.
Balonne R.
Maranoa R.
Warrego R.
Paroo R.
Bulloo R.
Cooper Creek
Diamantina R.
Georgina R.
Barcoo R.
Thomson R.
Flinders R.
Gulf Country
Mt. Isa
Cloncurry R.
Leichhardt R.
Gilbert R.
Norman R.
Albert R.
Limmen Bight R.
Roper R.
Victoria R.
Daly R.
Port Darwin
Melville I.
Bathurst I.
Clarence Str.
Van Diemen G.
Arnhem B

PORTUGUESE ISLANDS.

Madeira (134,000), a beautiful island, rising abruptly from the Atlantic, 360 miles west of Morocco. It consists of a mass of volcanic rock, the highest summit being about 6,000 feet. It is celebrated for its wines and for its salubrious climate. *Funchal* is the chief town. The **Cape Verde Islands** (111,000), about 320 miles west of Cape Verde, are also of volcanic formation. A volcano in Fogo, one of the islands, is about 9,200 feet high. *St. Iago* is the principal island. **St. Thome** and **Prince's Islands**, in the Gulf of Guinea, also belong to Portugal.

SPANISH ISLANDS.

The **Canaries** (288,000), off the north-west coast of Africa, seven in number, contain lofty volcanic mountains. Their chief product is wine. The Peak of Teneriffe rises about 12,200 feet in height. *Santa Cruz*, in Teneriffe, is the capital, but *Palma* is the largest town. The Canaries are now regarded as a portion of Spain proper. *Fernando Po* and *Annabon* are small islands in the Gulf of Guinea.

The name of a favorite singing bird is derived from that of these islands, but the islands were so called from a breed of wild dogs that formerly infested them.

OCEANIA.

Oceania is the name usually given to a fifth great division of the globe. It includes the vast number of islands lying to the south-east of Asia, and those in the Pacific Ocean. They are mostly small, though collectively they comprise an area somewhat larger than the whole of Europe. These islands are divided into *Malaysia*, or the East Indian Archipelago, *Australasia*, and *Polynesia*.

MALAYSIA.

Malaysia, or the East Indian Archipelago, comprises the numerous islands lying to the south-east of Asia. The principal are: *Sumatra*, *Java*, *Borneo*, *Celebes*, the *Philippine Islands*, the *Moluccas*, or Spice Islands, *Flores*, and *Timor*, etc.

These islands are volcanic in their formation, and are all within the torrid zone. They are within the range of the monsoons; and, owing to the sea breezes, the climate is not so hot as on the adjacent continent. The soil is fertile, and large quantities of spices, sugar, coffee, and other tropical productions are exported.

They are peopled chiefly by Malays, an active but fierce and treacherous race, much addicted to piracy. The natives of some of the islands are negritos, a savage and very degraded race. The whole population is estimated at 35,000,000. Most of the islands belong to European nations. The Dutch possess Java, with portions of Sumatra, Borneo, and Celebes, besides a number of the smaller islands. The Spaniards possess the greater part of the Philippines. The British have possessed the small island of *Labuan*, off the coast of Borneo, since 1846. The northern part of Borneo is now subject to Britain. The Dutch possessions were captured by the British in the beginning of this century, but were restored at the peace of 1814. The Dutch now own the greater part of the island.

Sumatra is a long, narrow island, upwards of 1,000 miles in length, lying to the south-west and south of the Malay Peninsula, from which it is separated by the Strait of Malacca. The island is about three-fourths the size of Quebec, and is directly under the equator. It is traversed by chains of lofty mountains, one of their summits rising over 12,000 feet in height. Most of the surface is covered with dense forests, affording a retreat to numerous wild animals. Between the mountain ranges are large and fertile plains, producing coffee, pepper, rice, and camphor, which are largely exported. The Dutch possess all that part of the island lying south of the equator; the remainder is occupied by native States. The principal Dutch towns are *Palembang*, *Padang*, and the seaport of *Bencoolen*. The islands of *Banca* and *Billiton*, off the east coast, belong to the Dutch, and contain valuable tin mines.

Java lies to the south-east of Sumatra, from which it is separated by the Strait of Sunda. It is about one and one-fourth times the size of Newfoundland, and is the most populous and fertile of the Malaysian Islands. It is traversed by a lofty chain of volcanic mountains, and has numerous fine harbors and bays. Large quantities of coffee, rice, sugar, and cinnamon are exported; and in the interior are extensive forests of teak. **Madura** is an adjacent island. The population is about 23,000,000, including Madura, consisting chiefly of Malays. It belongs to the Dutch, whose settlements are mostly on the north coast. The chief town is *Batavia* (800,000), the capital of the Dutch East Indian possessions.

The smaller islands lying to the east of Java, as *Bali*, *Lombok*, *Sumbawa* (with an active volcano), *Sandalwood*, *Flores*, *Timor*, etc., belong to the Dutch, with the exception of a small settlement in Timor belonging to the Portuguese.

Borneo is about one and one-half times as large as Quebec.

To the Teacher.—The Brush Turkey, much esteemed for the delicacy of its flesh, is found only in the dense thickets of south-eastern Australia. Unlike other birds, the female does not hatch her eggs by incubation. The eggs are placed in great mounds of grass and weeds, which the birds heap up, and are there hatched by the heat of the decomposing vegetable matter.—The Lyre-bird is found in the mountains of New South Wales. It flies but poorly, though it runs with great swiftness. It is of about the size of a common hen.—The Black Swan, a most graceful bird, is found in southern and central Australia.—The Kangaroos are of very many species; they are mostly confined to Australia and Tasmania;—a few species are found in Papua. To Australia the kangaroos are what deer and antelopes are to other continents. Many of the species might be domesticated.—The Brush-tailed Bettongs are a sort of kangaroo; they have long, prehensile tails, which they use for carrying bundles of grass with which they build their nests. —The Wombats are terrestrial burrowing animals, harmless, and slow-moving; they inhabit southern Australia and Tasmania.—The Bandicoots are also terrestrial animals; they make their nests out of dried leaves, grass, and sticks.—The Duck-billed Water-mole, and the Porcupine Ant-eater, are found only in Australia and Tasmania.—The Emu is a bird of the ostrich kind. It has only rudimentary wings, and its feathers at a distance resemble fur. It is a very swift runner, but it is so much hunted that it is now found only in the interior parts of Australia. (NOTE.—In the Malay Archipelago is found another bird of the ostrich kind, which much resembles the emu; it is called the Cassowary).—The Tasmanian Wolf, or Zebra-wolf, is a pouched animal, wolf-like in its habits, and having a head like a dog. It is found only in Tasmania.—The Apteryx is found only in New Zealand. Like the emu, it has merely rudimentary wings. When resting, it partly supports itself by its long bill. Its feathers are furnished with long fine hair, so that, at a distance, it seems to be fur-covered. From its peculiar cry it is called by the natives *Kivi-kivi.*

It is separated from Java by the *Java Sea*, from Celebes by the *Strait of Macassar*, and lies directly under the equator. The heat on the coast is moderated by the sea breezes, and the soil is fertile; but a great part of the island is covered with dense forests. The interior, which is mountainous, is but little known. The highest elevation is *Kini Balu* (13,670 feet). Borneo has several large navigable rivers. The western and southern, with part of the eastern coast, belongs to the Dutch. The district of *Sarawak*, in the north-west, was ruled from 1841 to 1858 by Sir James Brook, a British subject, as rajah, appointed by the Sultan of Borneo. All the northern portion is now subject to Great Britain. There are valuable mines of diamonds, gold, tin, iron, copper, lead, and coal in the island. The population is estimated at about 1,750,000, consisting of Malays, Chinese, and Europeans on the coast, and Dyaks, the native race, in the interior. *Borneo* (40,000), on the north-west coast, is the capital of the native State of Bruni, or Borneo, and carries on considerable trade with Singapore, China, and the Philippine Islands.

Labuan Island, belonging to Britain, is at the mouth of the river on which the town of Borneo is situated.

Celebes lies to the east of Borneo, from which it is separated by the Strait of Macassar, and between it and the Philippine Islands is the Sea of Celebes. It is so deeply indented by bays as to form four long peninsulas. It is nearly twice as large as Newfoundland. The surface is hilly, and the soil fertile, yielding rice, sugar, and sago. It also supplies trepang, or sea-slugs, and edible birds' nests, considered great delicacies by the Chinese. The island is held by the Dutch, including the settlement of Macassar, with a town of the same name.

The **Philippine Islands** lie to the north-east of Borneo. They are estimated at about 1,200 in number, and are traversed by mountains. The climate is hot, but moist, and the soil fertile. Violent hurricanes and earthquakes often devastate them. The chief exports are rice, sugar, tobacco, and Manilla hemp. The islands were taken possession of by the Spaniards in 1565, and still form one of the most important of the Spanish colonies. The largest island is *Luzon*, with *Manilla* (270,000), the capital. The other islands of importance are: *Mindoro*, *Palawan*, *Mindanao*, and *Samar*.

The **Moluccas, or Spice Islands,** lie to the north-east of Celebes, and are famous for their spices, nutmegs, cloves, etc. The principal are *Gilolo*, *Amboyna*, *Ceram*, *Booroo*, and the *Banda Islands*. They belong chiefly to the Dutch. Still farther south are some smaller islands of little importance.

AUSTRALASIA.

Australasia comprises the large islands of *Australia*, *Tasmania*, formerly called Van Diemen's Land, *New Zealand*, and *New Guinea*, with a large number of smaller islands lying to the east of New Guinea and Australia.

AUSTRALIA.

Area, 3,000,000 square miles, about the same size as the Dominion of Canada; population, 3,033,000.

Australia is the largest island in the world, being about four-fifths the size of Europe. It belongs to Britain, and is divided into five colonies: *Victoria*, *New South Wales*, *Queensland*, *South Australia*, and *Western Australia*, besides North Australia, which is not yet much settled.

The **surface** consists chiefly of vast plains, covered with grass or thickly wooded, and arid, sandy deserts; the latter, however, have been found, by the dear-bought discoveries in 1860 of Burke and Wills, to be less inhospitable and extensive than was formerly supposed. There are several detached chains of mountains near the coast. The principal chain is in the south-east, where the *Australian Alps* extend northwards from Bass's Strait, about 40 miles from the shore. Some of the peaks, as *Mounts Hotham* and *Kosciusko*, rise about 7,200 feet high, and are covered with snow for a great part of the year. Farther north the chain continues, under the name of the *Blue Mountains* and the *Liverpool Range*. In Western Australia, near the coast, are ranges of low mountains, extending inland about 300 miles, and forming a table-land. The highest summit is about 5,000 feet. Other small chains occur in South Australia.

Australia, considering its great extent, possesses fewer navigable **rivers** than any other part of the world. The only river of any size is the *Murray River*, which rises in the Australian Alps, and flows west into Encounter Bay. It is about 2,000 miles long, and is navigable for a considerable distance. It receives, on the north bank, the *Darling* and the *Murrumbidgee*, with its affluent the *Lachlan*. On the eastern coast are numerous small rivers, rising in the mountains and flowing east; but they are small, and of little service to commerce, owing to the proximity of the mountains to the coast. In South Australia are several large lakes: *Torrens*, *Gairdner*, *Gregory*, *Eyre*, *Frome*, and *Amadeus*. In Western Australia are *Lakes Austin*, *Barlee*, *Lefroy*, and *Brown*.

Australia is very compact in form, the only great **indentations** being the *Gulf of Carpentaria*, on the north, and almost opposite, on the south, the *Great Australian Bight*. Besides these are: on the east, *Hervey Bay*, opposite Great Sandy Island, *Moreton Bay*, and *Port Jackson;* on the south, *Port Philip*, *Encounter Bay*, and *St. Vincent* and *Spencer Gulfs;* on the west, *Geographe* and *Shark Bays*, and *Cambridge Gulf;* and on the north, *Gulf of Van Diemen*, opposite Melville Island, and *Melville* and *Castlereagh Bays*.

Along the north-eastern coast, at a distance of from 20 to 150 miles from the shore, the *Great Barrier Reef*, a submarine wall of coral, extends for a distance of 1,200 miles. Australia is separated from New Guinea by *Torres Strait*, and from Tasmania by *Bass's Strait*.

The principal **capes** are: *York*, *Howe*, *Wilson*, *Leeuwin*, and *Steep Point*. *Cape York Peninsula* forms the eastern side of the Gulf of Carpentaria.

The principal **islands** are: *Melville* and *Bathurst*, in the north-west; *Groote Eiland*, in the Gulf of Carpentaria; *Great Sandy Island*, in the west; *King Island*, in Bass's Strait; and *Kangaroo Island*, near St. Vincent Gulf.

The **climate** of Australia varies with the latitude. The northern part of the island is within the tropics, and is subject to the tropical rains; while the southern part, in the temperate zone, is very dry and warm, but healthy. The seasons are exactly the reverse of those in North America—midsummer being in December and midwinter in June. Almost all the European fruits and grains grow in abundance, but the greater part of the country is more adapted for pasturage. Vast herds of sheep are reared, and wool forms one of the great staple exports of the country. Australia is rich in minerals, such as iron, coal, copper, lead, and tin; but the most important of all are the valuable gold mines or diggings, in Victoria and New South Wales. They were discovered in 1851.

The native **animals** and **vegetation** are altogether different from those in any other part of the world. Gum trees and acacias are the principal trees, and yield valuable timber. Among the plants there is scarcely one useful for food. The animals are nearly all marsupial, or provided with pouches, in which to carry their young. The kangaroo and the opossum are of the number. The emu, or moa, a large bird like an ostrich, and other remarkable birds peculiar to Australia, are now rapidly becoming extinct.

The native **population** belong to the Papuan or Australnegro race. They are very degraded, are nearly black, short in stature, and are repulsive in appearance. They are now rapidly disappearing.

Australia, formerly called New Holland, was discovered by the Spaniards and Dutch in 1606. The first British settlement was made at Sydney in 1788, and was originally a penal colony. Since the discovery of the gold field, Australia has advanced very rapidly in population, wealth, and commerce. The annual imports now amount to about 230,000,000 dollars, and the exports to 267,000,000.

The **government** of each of the colonies is similar to that of some of the provinces of the Dominion of Canada, and consists of a governor and executive council, with a legislative council and assembly elected by the people.

NEW SOUTH WALES.

New South Wales (1,134,000) is the oldest colony, having been founded in 1788. It is traversed on the east by the Blue Mountains and Liverpool Range. Most of the large rivers rise in these mountains, and around their sources, on the west side, are valuable gold fields.

Sydney (386,400) is the capital. It exports large quantities of gold and wool, and was the first British settlement in Australia. Five miles to the south is *Botany Bay*, formerly a penal colony. *Bathurst* and *Goulburn* are centres of the mining districts. *Broken Hill* (19,800) is in the centre of a rich mining country. *Newcastle*, on the Hunter River, is a seaport.

VICTORIA.

Victoria (1,140,500), founded in 1836, occupies the south-eastern part of the island, and is traversed on the east by the Australian Alps, and some small ranges of hills on the west. The rest of the country is level, and well adapted for pasturage. It possesses rich gold fields.

Melbourne (491,400), on the Bay of Port Philip, at the mouth of the Yarra River, is the capital. It was founded in 1837, but has risen rapidly, and has now an extensive commerce. *Geelong* (24,200) is also on Port Philip, 45 miles from Melbourne. *Ballarat* (46,000), *Sandhurst* (37,000), and *Castlemaine* are considerable towns in the mining districts.

QUEENSLAND.

Queensland (393,700) is a large colony to the north of New South Wales, but as yet is thinly peopled. It was formerly known as the Moreton Bay district of New South Wales, but in 1859 was made a separate colony.

Brisbane (49,000), the capital, is at the mouth of the Brisbane River, which flows into Moreton Bay.

SOUTH AUSTRALIA.

South Australia (315,000) is an important agricultural country, and possesses very valuable copper mines. A range of hills extends northwards along the eastern shore of

St. Vincent Gulf, and some smaller detached ranges occur in the south. It contains also several large lakes, such as Torrens, Gairdner, Gregory, Frome, and Amadeus. Grain is exported to the neighboring colonies, and large quantities of copper and wool go to Europe.

Adelaide (133,300), the capital, is near the eastern shore of St. Vincent Gulf. The chief copper mines are the *Burra Burra*, 35 miles north-east of the Gulf of St. Vincent, the *Moonta*, and the *Wallaroo*.

WESTERN AUSTRALIA.

Western Australia has the largest area of any colony in the island. It contains only about 50,000 inhabitants, not including the aborigines.

Perth (10,000), the capital, is on the Swan River, on the west coast.

TASMANIA.

Area, 26,215 square miles; population, 146,700.

Tasmania is an island lying to the south-east of Australia, from which it is separated by Bass's Strait. It is nearly as large as New Brunswick. The surface is hilly, and the coast indented with fine bays and harbors. The climate is mild and healthy, and the soil fruitful. It is a rich mineral country, especially in the west.

Hobart (25,000), the capital, is on the River Derwent, which flows into Storm Bay, on the south-east of the island. It is beautifully situated, being surrounded by hills.

Launceston (17,000) is on the north side of the islan , on the River Tamar, which flows into Bass's Strait.

NEW ZEALAND.

Area, 104,471 square miles; population, 668,353.

New Zealand consists of two large islands and several smaller ones, lying about 1,100 miles south-east of Australia. The larger islands are called *North Island* and *South Island*, and are separated by Cook's Strait. *Stewart Island* is small, and is separated from South Island by Foveaux Strait. The area is about the same as that of Great Britain and Ireland. Along the west coast of both of the large islands extends an elevated chain of mountains, many of their peaks being covered with perpetual snow. *Mount Egmont*, in North Island, is over 8,000 feet high; other peaks rise to a higher elevation, culminating in *Mount Cook* (13,300), in the South Island. There are a number of small rivers, some of them navigable. The **climate** is mild and healthy, and the soil fertile, producing most of the grains and fruits of Southern Europe. The taro, sweet potato, and flax are cultivated, and sheep are extensively reared for their wool.

The natives are called Maories, and are of the Malay race—a tall, well-formed, intelligent people, brave and determined in war, in which they have been often engaged with the British colonists. They are steadily decreasing in numbers, the present native population being only 41,523.

New Zealand is divided into nine provincial districts. In North Island are **Auckland,** with a capital (51,287) of the same name; **Taranaki,** with *New Plymouth*, the chief city; **Hawke's Bay,** capital *Napier;* and **Wellington** (about 33,200), with *Wellington* for its capital. In South Island are **Marlborough,** with *Blenheim* and *Picton;* **Nelson,** with *Nelson*, the chief place; **Canterbury,** with *Christchurch* (47,846); **Otago,** with *Dunedin* (45,865), near which are valuable gold fields; *Riverton, Invercargill;* and **Westland.**

Norfolk Island, to the north of New Zealand, was formerly a penal settlement, but it now belongs to the Pitcairn islanders.

Chatham, Antipodes (so called from being the land most nearly opposite to Great Britain in the southern hemisphere), *Auckland*, and other islands to the south-east of New Zealand, are stations for the South Sea whale and seal fishery.

PAPUA, OR NEW GUINEA.

Papua, or **New Guinea,** next to Australia and Greenland the largest island on the globe, is situated to the north of Australia, from which it is separated by Torres Strait. It lies directly under the equator.

The Northern Territory, extending from 26° south latitude to the Arafura Sea, is provisionally under the government of South Australia. Little is known of its resources, and there are no important settlements.

On some parts of the coast it is mountainous, but the interior is still unexplored. It is mainly under the jurisdiction of the British and Dutch, and is visited by the Chinese and Malays for trepang and edible birds' nests. The beautiful bird of paradise is a native of the island. The chief British town is *Port Moresby*.

The numerous groups of islands lying to the east of New Guinea and Australia are but little known. The principal are: *Admiralty Islands, New Ireland, New Britain, Louisiade Archipelago, Solomon Islands, Queen Charlotte Islands, New Hebrides,* and *New Caledonia*.

The French have possessed New Caledonia (which is a penal settlement) since 1854.

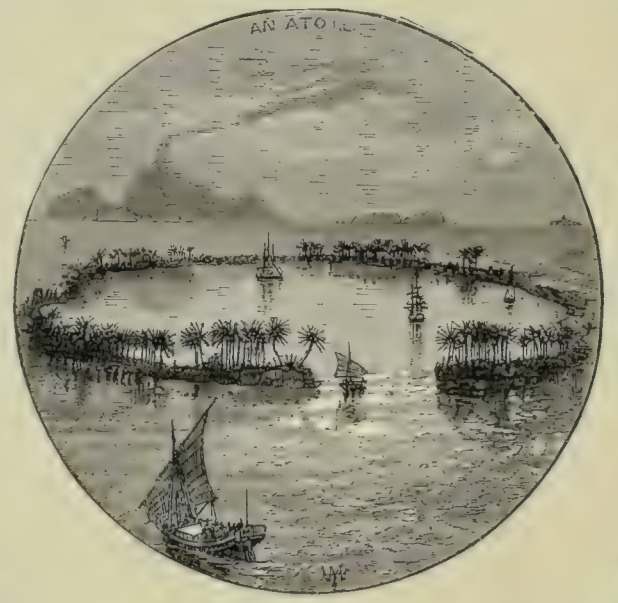
POLYNESIA.

Polynesia is the name given to the vast number of islands scattered over the Pacific Ocean, chiefly within 30° north and south of the equator. The larger islands are volcanic,

but most of the smaller ones have been produced by the labors of the diminutive coral creature, improperly called an insect.

The principal groups north of the equator are: the *Ladrone*, or Marianne, *Pelew*, *Caroline*, *Marshall*, *Gilbert*, and *Sandwich Islands*. South of the equator are: the *Fiji*, *Friendly*, or Tonga, *Navigator's*, or Samoa, *Cook's*, or Hervey, and *Society Islands*, the *Low Archipelago*, and *Marquesas Islands*.

The coral islands are generally very small, and are raised but a few feet above the level of the ocean. They are often circular in shape (atolls), with lagoons of still water almost wholly encompassed. Those of volcanic formation are mountainous, with rich and fertile valleys, as the Marquesas, Society, and Sandwich Islands. In *Hawaii*, one of the latter group, there are two volcanic mountains, rising upwards of 13,000 feet in height. Although these islands are nearly all within the torrid zone, the climate is delightful and healthy, being tempered by the sea breezes. The soil is remarkable for its fertility, producing the cocoa-palm, bread-fruit, plantains, bananas, yams, and other tropical trees and fruits.



The natives are chiefly of the Malay race, and are well-made and active; differing greatly, however, in disposition, being mild and hospitable in some islands, and in others savage and treacherous.

The Fiji Islands, as well as the Papuan Archipelago, are inhabited by the Austral-negro race (121,200), who are among the lowest and most degraded inhabitants of the world. The Fiji Islands are fertile, and form convenient stopping-places on the voyage between San Francisco and Australia. They were annexed to Britain in 1875. *Suva* is the chief town.

The **Sandwich** and **Society Islands** are the most important groups in Polynesia, and their inhabitants have made the greatest advances in civilization. The Sandwich Islands have a population of about 90,000. They are regularly visited by whaling and other vessels, and trade in their own ships with America and with China. *Hawaii* is the largest island, and it was there that Captain Cook, the discoverer, was killed. *Honolulu* (20,500), on one of the smaller islands, is the capital.

The largest of the Society Islands is *Tahiti*, or *Otaheite*. It contains a population of 11,200, and is memorable as the scene of the mutiny of the *Bounty*. *Pitcairn Island*, where the mutineers settled, is south-east of the Low Archipelago. The Society Islands are now under the control of France. Christian missions have been very successful in Polynesia, many of the islands being completely Christianized.

ANTARCTICA.

This name is given to several extensive tracts of land supposed to form part of a Southern Continent, and a number of islands which have been discovered in the Antarctic Ocean.

The principal tract of land is *South Victoria*, lying to the south of New Zealand, discovered in 1840 by Sir James Ross. It is covered with glaciers and perpetual snow, and has lofty mountains along the coast. Its most notable feature is the great volcano of *Mount Erebus*, 12,400 feet high, the flames of which rise to a considerable height above its crater, and throw a weird light over these desolate regions. Farther east is *Mount Terror*, another volcano, nearly 11,000 feet high. Both are named from the exploring ships *Erebus* and *Terror*. West of these is the south magnetic pole.

The other principal tracts are: *Adelia* and *Sabrina Lands*, south of Australia; farther west, *Enderby* and *Kemp Lands*, south of Madagascar; and *Graham Land*, 600 miles south of Cape Horn. Round the coast of Graham Land are numerous islands—the *South Shetland*, *South Orkney*, *South Georgian Islands*, and others. Besides these are a number of small islands, lying much farther north, of the same cold, barren, and desolate character. They are chiefly volcanic in formation. Their shores are frequented by the albatross and vast numbers of penguins; seals and whales abound in the neighboring seas. The more notable of these smaller islands are: *Tristan d' Acunha*, *Prince Edward*, *Marion*, *Crozet's*, *Kerguelen*, *Amsterdam*, *St. Paul's*, and *Macquarie*.

THE END.